Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational,	)	
Technical and Spectrum Requirements	)	
For Meeting Federal, State and Local	)	WT Docket No. 96-86
Public Safety Agency Communication	)	
Requirements Through the Year 2010	)	
	)	
Establishment of Rules and Requirements	)	
For Priority Access Service	)	

SECOND MEMORANDUM OPINION AND ORDER

Adopted: July 21, 2000 **Released: August 1, 2000**

By the Commission:

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I. INTRODUCTION

1. On September 29, 1998, we established a band plan and adopted service rules in the public safety spectrum at 764-776 MHz and 794-806 MHz ("the 700 MHz band").[1] Seventeen parties filed petitions for reconsideration and/or clarification ("Petition(s)") of decisions contained in the *First Report and Order*.[2] On May 4, 1999, we resolved two petitions filed by the American National Standards Institute ("ANSI") and the Telecommunications Industry Association ("TIA").[3] On February 25, 2000, the Public Safety National Coordination Committee (NCC) submitted its recommendations to the Commission for technical and operational standards for use of the 700 MHz band.[4] We recognize that the NCC Recommendations pertain to matters that are the subject of some of the Petitions. Given that we anticipate seeking public comment on the substance of the NCC Recommendations, we will defer resolution of the reconsideration requests concerning digital standards in the 700 MHz band at this time. This *Second Memorandum Opinion and Order* ("*Second MO&O*") resolves those portions of the petitions that address our decisions in the *First Report and Order* on:

- digital modulation requirement for public safety 700 MHz radios;[5]
- certain technical requirements—namely, transmitter power and antenna height,[6] automatic power control,[7] emission limits,[8] frequency stability,[9] wideband channel efficiency standards,[10] and receiver standards;[11]
- protection criteria established between television and land mobile operations;[12]

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[1] The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking*, 14 FCC Rcd 152 (1998) (*recon. pending*) (referred to herein as "*First Report and Order*" or "*Third Notice*" as applicable). The issues contained in the *Third Notice* will be addressed in a separate document in this proceeding.

[2] In addition, fourteen parties filed oppositions to specific petitions and replies to the oppositions. A list of the parties, with their acronyms, that filed Petitions, Oppositions and Replies is contained in Appendix A.

[3] *See* The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, *Memorandum Opinion and Order on Reconsideration*, 14 FCC Rcd 8059 (1999) ("*First MO&O*").

[4] Public Safety National Coordination Committee, Recommendations to the Federal Communications Commission for Technical and Operational Standards fo Use of the 764-776 MHz and 794-806 MHz Public Safety Band Pending Development of Final Rules (Feb. 25, 2000) ("NCC Recommendations").

[5] *First Report and Order*, 14 FCC Rcd at 203, 204 ¶¶ 107-110. *See* Petitions of APCO, NPSTC, Motorola, AASHTO and NYSTEC.

[6] *First Report and Order*, 14 FCC Rcd at 216 ¶¶ 143, 144. *See* Petitions of APCO and NYSTEC.

[7] *First Report and Order*, 14 FCC Rcd at 216 ¶ 144 *See* Petitions of APCO, NYSTEC, Motorola and Ericsson.

[8] *First Report and Order*, 14 FCC Rcd at 213, 214 ¶ 136-38. *See* Petitions of Ericsson and Motorola.

[9] *First Report and Order*, 14 FCC Rcd at 214, 215 ¶ 139. *See* Petition of Ericsson.

[10] *First Report and Order*, 14 FCC Rcd at 172, 173 ¶¶ 37, 38. *See* Petitions of Ericsson, Dataradio and APCO.

[11] *First Report and Order*, 14 FCC Rcd at 207-209 ¶¶ 118-121. *See* Petition of FLEWUG.

[12] *First Report and Order*, 14 FCC Rcd at 217-227 ¶¶ 146-164. *See* Petitions of APCO, NYSTEC and Motorola.

- eligibility for licensing and alliances under Section 2.103(b) of our Rules,[13] and
- administrative issues regarding regional planning, national planning, and frequency coordination.[14]

II. EXECUTIVE SUMMARY

2. In this *Second MO&O*, we respond to the petitions addressing decisions made in the *First Report and Order*. The major decisions we adopt today include:

- Digital Modulation Requirement for Public Safety 700 MHz Radios: We uphold our decision to require that all 700 MHz equipment be designed to employ digital modulation as the primary modulation mode, and decline to permit analog modulation as a primary mode for an interim period.

- Technical standards: We retain the rules regarding limitations on transmitter power and antenna height because any necessary variance from the transmitter power and antenna height limits required by an applicant can be pursued through the normal waiver process. We decide that the requirement of an automatic power control ("APC"), a feature that allows the radio system to automatically adjust the output power of transmitters for mobile and portable units, should be optional. We amend the transmitter frequency stability requirement for public safety 700 MHz band equipment.

- Protection Criteria Established Between Television and Land Mobile Operations: We retain the current TV/land mobile protection criteria and reiterate that public safety applicants can submit an engineering study to justify TV/land mobile station separations other than those specified in the Rules.

- Applications and Licensing of Nongovernmental Organizations: We clarify and revise implementation matters concerning applications and licensing of nongovernmental organizations (NGOs), while affirming the eligibility criteria for NGO licensing adopted in the *First Report and Order*.

- Federal Use of the 700 MHz Band: We confirm that Federal Government use of the 700 MHz band pursuant to "Section 2.103(b) agreements" with state or local government licensees is permissible and consistent with the Commission's Rules.[15]

- 700 MHz Band Administration Issues: We affirm and clarify matters related to regional planning, national planning, and frequency coordination in the 700 MHz band.

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[13] *First Report and Order*, 14 FCC Rcd at 178-188 ¶¶ 49-72. *See* Petitions of API, NPSTC, NYSTEC, FLEWUG, UTC and AASHTO.

[14] *First Report and Order*, 14 FCC Rcd at 188-201 ¶¶ 73-100. *See* Petitions of APCO, API, NPSTC, NYSTEC, FLEWUG, California, Pennsylvania, UTC and AASHTO.

[15] Section 2.103(b) provides a new sharing option for the 700 MHz band under which the Commission authorizes its state or local governmental licensee to allow a federal public safety entity to use the licensed channels pursuant to the terms of a written agreement between the licensee and the federal entity.

III. BACKGROUND

3. On August 14, 1996, the Commission acknowledged that a portion of the spectrum recovered from TV channels 60-69 upon the full deployment of digital television (DTV) "could be used to meet public safety needs."[16] In the *DTV Sixth Report and Order*, the Commission decided to initiate a separate proceeding to address the allocation of TV channels 60-69, with serious consideration to allocating 24 MHz of that spectrum for public safety use.[17] Subsequently, in the 1997 Budget Act, Congress directed the Commission to reallocate 24 MHz of the spectrum recovered from TV channels 60-69 for public safety services.[18]

4. Shortly thereafter, the Commission reallocated 24 MHz of spectrum located in the 700 MHz band for public safety services.[19] This was the largest allocation ever made for public safety communications and constituted a significant public benefit derived from the conversion of television broadcasting in the United States from analog technology to state-of-the-art digital technology.[20] In the Public Safety *Second Notice*, the Commission sought comment on how best to use the newly reallocated 24 MHz of spectrum in the 700 MHz band, including a broad range of options to promote the efficient and effective use of the 700 MHz band to meet those needs.[21]

5. In the *First Report and Order*, we took steps to develop a flexible regulatory framework to meet vital current and future public safety communications needs and ensure that sufficient spectrum to accommodate efficient, effective telecommunications facilities and services will be available to satisfy public safety communications needs into the 21st century. In this connection, we established a band plan and adopted service rules to commence the licensing process for the 700 MHz band.[22] In addition, we designated 2.6 MHz of spectrum in the 700 MHz band for interoperability purposes (the ability of different governmental agencies to communicate across jurisdictions and with each other).[23] We also adopted technical specifications to enhance spectrum efficiency and minimize harmful interference in the 700 MHz band.[24]

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[16] Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Sixth Further Notice of Proposed Rule Making*, 11 FCC Rcd 10,968, 10,980 (1996).

[17] Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Sixth Report and Order*, 12 FCC Rcd 14,588, 14,626 (1997) (*"DTV Sixth Report & Order"*).

[18] 1997 Budget Act, codified at 47 U.S.C. § 337.

[19] Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Notice of Proposed Rule Making*, 12 FCC Rcd 14,141 (1997); *Reallocation Report and Order*, 12 FCC Rcd 22,953 (1998).

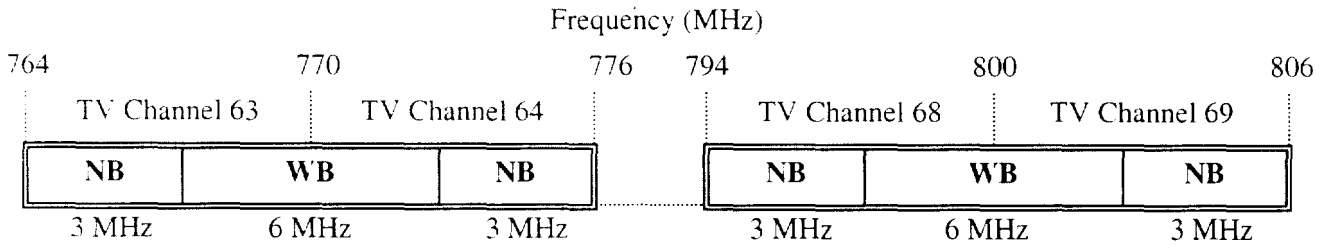
[20] *DTV Sixth Report and Order*, 12 FCC Rcd at 14,588.

[21] Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010; Establishment of Rules and Requirements of Priority Access Service, WT Docket No. 96-86, *Second Notice of Proposed Rule Making*, 12 FCC Rcd 17,706 (1997) (*"Second Notice"*).

[22] *First Report and Order*, Appendix E, 14 FCC Rcd at 266.

[23] *Id.* at 165 ¶ 20.

[24] *Id.* at 266, Appendix E.



NB = narrowband channels
WB = wideband channels

700 MHz Public Safety Band Spectrum & Channels
As Adopted in the *First Report and Order*

Designated Purpose	Amount of Spectrum	Narrowband (6.25 kHz)	Wideband (50 kHz)
General Use	12.6 MHz (52.5 %)	7.8 MHz (1248 channels)	4.8 MHz (96 channels)
Nationwide Interoperability	2.6 MHz (10.8 %)	0.8 MHz (128 channels)	1.8 MHz (36 channels)
Reserved	8.8 MHz (36.7 %)	3.4 MHz (544 channels)	5.4 MHz (108 channels)
TOTAL	24 MHz (100 %)	12 MHz (1920 channels)	12 MHz (240 channels)

6. The band plan designates 764-776 MHz (TV Channels 63 and 64) for base-to-mobile communications and 794-806 MHz (TV Channels 68 and 69) for mobile-to-base communications.[25] The band plan also accommodates all of the existing operational modes (voice, data, image/HSD, and video) and is flexible enough to allow deployment of future technologies. Therefore, the band is divided into separate segments for narrowband and wideband communications for both general use and nationwide interoperability. To promote efficient spectrum usage and flexibility, the band plan incorporates a "building block" channelization approach, based on the smallest practical channel sizes for narrowband and wideband public safety communications. Channels may be combined for both general use, and interoperability. We also permit the combination of up to four narrowband 6.25 kHz channels and three wideband 50 kHz channels to create larger channels as needed to accommodate transitional technology, such as 12.5 kHz or 25 kHz voice and data channels, or communications requiring higher data speeds.[26]

[25] *Id.* at 168, 169 ¶¶ 28, 29.

[26] *Id.* at 173-75 ¶¶ 38, 41.

IV. DISCUSSION

A. Technical Requirements

1. Digital Modulation Requirement

7. In the *First Report and Order*, we noted that we have a unique opportunity to ensure that spectrally efficient modulation technology is incorporated in public safety equipment for this band from the outset.[27] Thus, we required that all 700 MHz band public safety equipment, when operating on the general use, interoperability, and reserve channels, employ digital modulation as the primary modulation mode. Mobile and portable units, when operating on the interoperability channels, could also utilize analog modulation as a secondary mode in addition to the primary digital mode.[28]

8. The Petitioners addressing our digital modulation requirement are concerned about increased equipment costs and long delays in the availability of 700 MHz band equipment due to the lack of an approved digital standard.[29] The Petitioners suggest that we either allow analog modulation for some interim period, or adopt a digital standard immediately. APCO, NPSTC and AASHTO request a transition period in which we permit analog operation for varying periods of time.[30] The Petitioners argue that the transition period is necessary because digital equipment is not available, and small agencies cannot afford the higher costs involved in upgrading to digital equipment.[31] The Petitioners also assert that their plan would create an incentive for public safety entities to transition to 6.25 kHz digital systems, while also allowing immediate licensing. For example, AASHTO states that to permit rapid implementation of equipment manufacturing and deployment in the 700 MHz band, we should adopt a transition process that will allow the immediate use of current 12.5 kHz analog technology, consistent with the appropriate regional and national planning processes.[32]

9. In the *Second Notice* we asked whether the possible delay in setting a digital modulation standard for interoperability might outweigh the advantages of digital modulation. After review of the comments, we concluded that the long-term advantages of digital modulation outweigh the delay associated with the development of digital standards for interoperability.[33]

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[27] *First Report and Order*, 14 FCC Rcd at 204 ¶ 109.

[28] *First Report and Order*, 14 FCC Rcd at 204, 210 ¶¶ 110, 128.

[29] Apart from stated preferences for specific standards, several Petitioners contend that we should adopt a digital standard immediately to avoid delay in equipment availability. For example, NPSTC is concerned about the time needed for the NCC to develop new standards for the 700 MHz band. NPSTC Petition at 6, 7. NYSTEC indicates that it is implementing a statewide public safety communications system and cannot begin the Request for Proposals procedure until a digital standard is adopted and spectrum is obtained. NYSTEC Petition at 3-9. Motorola maintains that our decision to direct a Federal Advisory Committee to develop a digital technology standard for the public safety interoperability channels will delay the introduction of 700 MHz public safety radios and will not fully promote interoperability among public safety users. Motorola Petition at 5-13.

[30] APCO Petition at 13-15 (five years after selection of a digital standard); NPSTC Petition at 7, 8 (five to ten years); AASHTO Petition at 5, 6 (cut-off date of January 1, 2007).

[31] *See, e.g.*, NPSTC Petition at 7, 8.

[32] AASHTO Petition at 5.

[33] *First Report and Order*, 14 FCC Rcd at 204 ¶ 110.

10. The Petitions do not persuade us otherwise. We continue to believe that this allocation—the largest ever made for public safety communications—presents a unique opportunity to ensure from the outset the incorporation of spectrally efficient modulation (*i.e.*, digital) technology in all 700 MHz band public safety equipment.[34] Thus, we decline to adopt an interim analog modulation standard. Further, we note that the submission of the NCC Recommendations regarding technical and other standards on the interoperability channels indicates that considerable progress has already been made on this matter.[35] Hence, we believe that the immediate lack of a digital standard will not substantially delay implementation. Accordingly, we affirm our decision in the *First Report and Order* to require that *all* 700 MHz band equipment (general use, interoperability, and reserve) use digital modulation as its primary modulation mode.[36]

2. Transmitter Power/Antenna Height

11. In the *First Report and Order*, we adopted transmitting power and antenna height limits for the 700 MHz band that correspond to those power and height limits applicable to the 800 MHz band.[37] While APCO and NYSTEC do not object to these limitations, they indicate that they seek to ensure the most efficient and effective spectrum utilization. They assert that Regional Planning Committees (RPCs) need flexibility to accommodate the unique geography and usage patterns that occur in some regions, therefore, they request that we allow RPCs to revise the transmitting power and antenna height limits as necessary.[38]

12. As discussed in the *First Report and Order*, one of the elements that a RPC must include in its Regional Plan is a general description of the allotment of spectrum among the various eligible users within the region. The description must also contain an explanation of how the requirements of all eligible entities within the region were considered and, to the degree possible, met.[39] Applications for station authorizations would be submitted to the RPC, who would review the application for concurrence with the regional plan. Upon approval by the RPC, the applicant would then submit the application to a frequency coordinator. In accordance with the Commission's Rules, any request for a waiver of the Commission's Rules required by an applicant to meet its system's requirements would be submitted with the applications and would be acted upon by the Commission.[40] While we agree with APCO that in some regions there may be occasional requirements in which transmitter power or antenna height requirements exceeding the Rules may be necessary to accommodate unique geography or usage patterns, we conclude that such circumstances must be resolved under existing procedures contained in our Rules. We, therefore, decline to modify our Rules to permit RPCs to revise any technical provisions in an application, in light of our belief that our existing waiver process provides an efficient and effective mechanism by which the Petitioners' stated concerns can be addressed.

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[34] *See also id.* at 204 ¶ 109.

[35] *See* NCC Recommendations. To allow the NCC to proceed in a timely fashion, we decided in our *First MO&O* to allow the NCC to recommend technical standards developed and approved by one or more existing ANSI Accredited Standards Developers. *See First MO&O*, 14 FCC Rcd at 8061 ¶ 3.

[36] We will allow mobile and portable units to have analog modulation capability as a secondary mode in addition to its primary digital mode.

[37] *First Report and Order*, 14 FCC Rcd at 216 ¶ 143.

[38] APCO Petition at 22; NYSTEC Petition at 10.

[39] *First Report and Order*, 14 FCC Rcd at 193 ¶ 84.

[40] *See* 47 C.F.R. § 90.151.

3. Automatic Power Control

13. In the *First Report and Order*, we required mobile and portable transmitters to be designed to employ automatic power control ("APC").[41] APC is a system capability that allows the system to automatically adjust the output power of mobile and portable transmitters in order to maintain the minimum transmitting power necessary for effective communications, and to minimize interference. In their Petitions, APCO and NYSTEC ask that we delete the APC design requirement for mobile and portable transmitters, because APC is incompatible with most public safety dispatch systems. Specifically, APCO indicates that APC will not function in the satellite receiver/voter comparator systems that many public safety radio operations use. APCO explains that APC could reduce a unit's power to the point where only a single receiver in the multiple receiver comparator system can receive the signal. APCO, NYSTEC and Motorola, therefore, suggest that the use of APC should be optional and not mandated by rule.[42] Additionally, NYSTEC states that digital cellular applications that do not require dispatch operation commonly use APC; however, it believes that APC would preclude technologies designed for public safety dispatch systems.[43] Ericsson also argues that it is inappropriate to require APC on mobile and portable units alone because this feature must be implemented throughout the network, including the radio infrastructure, to achieve the benefits associated with APC.[44]

14. We concur with the petitioners that the use of APC in mobile and portable transmitters should be an optional equipment requirement. Therefore, we are deleting Section 90.541(d) of our Rules which requires the design of mobile and portable units to employ APC. While we are deleting this requirement from our Rules, this does not preclude the ability of licensees to use transmitters employing APC should they desire to do so.

4. Emission Limitations

15. In the *First Report and Order*, we specified emission limits based upon adjacent channel coupled power ("ACCP") rather than specifying emission masks for various types of communications in the 700 MHz band.[45] Ericsson and Motorola support the ACCP concept but they contend that further analysis is required to establish appropriate intercepted adjacent band power levels that will cause interference to an adjacent channel receiver, and to translate these values into corresponding ACCP requirement values.[46] Motorola recommends that we allow manufacturers to address this matter, in the context of the TIA process, to ensure the submission of final ACCP recommendations within a short time frame.[47] Motorola adds that industry consensus is strongly preferred to further requests for reconsideration, and regulatory uncertainty.[48]

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[41] *First Report and Order*, 14 FCC Rcd at 216 ¶ 144; 47 C.F.R. § 90.541(d).

[42] APCO Petition at 22; NYSTEC Petition at 10, 11; Motorola Comments to Petitions for Reconsideration at 6, 7.

[43] NYSTEC Petition at 10, 11.

[44] Ericsson Petition at 15.

[45] *First Report and Order*, 14 FCC Rcd at 214 ¶ 138.

[46] Ericsson Petition at 10; Motorola Comments on Petitions at 6. Both Ericcson and Motorola recommend ACCP changes even though they believe that further analysis is necessary. *See* Ericsson Petition at 10-14; Motorola Petition at 25-27, Appendix B.

[47] Motorola Comments on Petitions at 6. By way of reference, we note that the Telecommunications Industry Association (TIA) Engineering Committee TR-8 is an American National Standards Institute (ANSI) Accredited

16. We agree with Ericsson and Motorola that further industry consensus recommendations would be useful to refine ACCP values. Accordingly, we defer further action on this issue at this time, while retaining the values adopted in our *First Report and Order*. We request that the industry review this technical issue and provide us, within a reasonable time frame (but not to exceed one year), consensus recommendations for values of ACCP emission limits.[49]

5. Frequency Stability

17. In the *First Report and Order*, we adopted Motorola's suggestion for a frequency stability requirement for narrowband mobile and portable units of 0.4 parts per million ("ppm") or better when the automatic frequency control ("AFC") is locked to the base station, and 2.5 ppm when the AFC is not locked.[50] In its Petition, Ericsson requests reconsideration of the narrowband frequency stability requirements. Ericsson argues that the frequency stability required by our current Rules for narrowband mobile and portable units (*i.e.*, 2.5 ppm) appears to be incorrect.[51] Ericsson states that the 2.5 ppm stability requirement for narrowband mobiles and portables limits the modulation spectral bandwidth in a 6.25 kHz channel to 2.25 kHz, and that this limitation might inflate the cost of equipment in an amount "greater than the improved frequency stability requirements."[52] Ericsson recommends that we adopt frequency stability requirements for this new band with varying operating channel bandwidths that are consistent with the stability requirements required for other public safety bands.[53]

18. Upon reconsideration, we are persuaded that the frequency stability requirement for narrowband equipment should be modified to improve equipment performance, and thereby, offer greater co-channel and adjacent channel protection within the 700 MHz band. Although no comments were received from the public safety community or equipment manufacturers regarding Ericsson's petition, we have reviewed the issue of frequency stability again and conclude that it should be revised. First, we note that the stability requirement for mobiles and portables in the 821-824 MHz public safety band (12.5 kHz channels) is 1.5 ppm, while the 806-821 MHz band[54] (25 kHz channels) is 2.5 ppm.[55] Additionally, the frequency stability requirements for 6.25 kHz channels that were adopted in the *Refarming Proceeding*

Standards Developer (ASD) with experience in this area of telecommunications work. See *First MO&O*, 14 FCC Rcd at 8064, 8065 ¶¶ 10, 11.

[48] Motorola Comments on Petitions at 6.

[49] *See also* 1998 Biennial Regulatory Review - 47 C.F.R. Part 90 - Private Land Mobile Radio Services, *Report and Order and Further Notice of Proposed Rule Making*, WT Docket No. 98-182, FCC 00-235, at ¶¶ 33, 34 (WTB PSPWD rel. July 12, 2000) (the Commission recently encouraged industry consensus on emission limitations).

[50] *First Report and Order*, 14 FCC Rcd at 214 ¶ 139; 47 C.F.R. § 90.539(c).

[51] Ericsson Petition at 16.

[52] *Id.*

[53] *Id. See also* 47 C.F.R. § 90.213(a); Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, *Memorandum Opinion and Order*, PR Docket No. 92-235, 11 FCC Rcd 17676, 17,699 (1996) ("*Refarming Proceeding*").

[54] The 806-821 MHz band is used by business, industrial and public safety entities for mobile and portable operations, as well as by commercial wireless services.

[55] *See* 47 C.F.R. § 90.213(a).

are more stringent (2.0 ppm for the 150 MHz band and 1.0 ppm for the 450 MHz band), and offer a greater level of interference protection than the 25 kHz channel 2.5 ppm for the 806-821 MHz band. While Ericsson's argument that the 2.5 ppm stability requirement limits the modulation spectral bandwidth to 2.25 kHz appears to consider the "worst case" situation (*i.e.*, mobile-to-mobile communications where one mobile transmitter has drifted downward in frequency and the other mobile has simultaneously drifted upward), we agree that more stringent requirements are desirable to improve channel reuse in the 700 MHz band. For these reasons, we adopt a frequency stability requirement with varying operating channel bandwidths for narrowband mobile and portable units of 1.0 ppm for 6.25 kHz, 1.5 ppm for 12.5 kHz (2 channel aggregate), and 2.5 ppm for 25 kHz (4 channel aggregate).[56]

6. Channel Efficiency Standards — Wideband Channels[57]

19. In the *First Report and Order* we established a channel efficiency standard of 384 kbps per 150 kilohertz of spectrum[58] for the wideband channels.[59] Ericsson and Dataradio have requested changes to the channel efficiency standard. Ericsson requests that we reduce the wideband channel data efficiency to 384 kbps per 200 kHz to be consistent with high speed data equipment now under development for application in other wireless communications markets. Ericsson states that the public safety market is not sufficient to support the development of equipment with our more stringent wideband data standard.[60] Dataradio recommends that we exempt rural areas (*i.e.*, locations within 120.7 km (75 miles) of the center of urbanized areas having 200,000 or more in population), from the wideband channel data efficiency standard.[61] Dataradio contends that a lower spectrum efficiency requirement for rural areas is more consistent with the needs and budgeting capabilities of lower-density jurisdictions.[62]

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[56] We note here that the NCC is looking into this issue of technical standards. We reserve the discretion to revisit this issue if the NCC recommends changes to these requirements.

[57] It should be noted, however, that channel efficiency standards for narrowband channels are not addressed by this Second Memorandum and Opinion because they may be affected by our disposition of the NCC Recommendations, particularly, the adoption of a digital standard.

[58] The equivalent bit rates are 128 kbps and 256 kbps for 50 kHz and 100 kHz channels, respectively.

[59] *First Report and Order*, 14 FCC Rcd at 174 ¶ 41; 47 C.F.R. § 90.535(c). In general, several Petitioners suggest alternative phrasings of 47 C.F.R. § 90.535. For example, Dataradio, in its Petition at n.7, states that the word "throughput," as generally used, involves other factors such as error correction and multiple bits per symbol, which are optional equipment design factors that the Commission has no control over. APCO, in its Petition at n.15, indicates that the term "channel data rate" would be more precise and consistent with industry nomenclature. Motorola, in its Petition at 28, recommends that the text of the new rules regarding 700 MHz band spectrum efficiency standards (47 C.F.R. §§ 90.535(b) and (c)) be amended to better comport with the existing spectrum efficiency standards for the 150 and 450 MHz bands as given in 47 C.F.R. § 90.203(j). We concur with these comments and will amend Section 90.535 of our Rules accordingly.

[60] Ericsson Petition at 9.

[61] Dataradio Reply to Response of APCO at 2-5. Originally, Dataradio requested that we clarify and/or amend the bit rate requirement for wideband channels less than 150 kHz and implement lower digital bit rates of 56 kbps and 128 kbps for 50 kHz and 100 kHz channels respectively to permit lower cost data equipment to be purchased by smaller public safety agencies. Dataradio Petition at 5-9.

[62] Dataradio Petition at 4. Dataradio also notes, "For most small and medium-sized jurisdictions, and particularly entities such as Native American Indian tribes occupying largely undeveloped and wide-spread reservations, budgetary constraints absolutely foreclose the ability to invest in redundant, ubiquitous infrastructure." *Id.* at 6.

20. In the *First Report and Order*, we considered the various factors needed to establish a meaningful wideband channel efficiency standard.[63] We gave favorable consideration to the recommendations suggested by NPSTC and the Public Safety Wireless Advisory Committee ("PSWAC"), resulting in the adoption of a wideband channel efficiency standard of 384 kbps for 150 kHz channels as recommended in the PSWAC Final Report.[64] We also refused to permit applicants to combine 50 kHz channels to make wideband channels larger than 150 kHz, because doing so could significantly reduce the limited number of wideband channels available for other public safety providers.[65] After review of the record on this issue, we remain convinced that this rationale is proper and find that the Ericsson and Dataradio arguments are not persuasive. We agree with APCO that the efficiency standards should not be lowered to meet vendors' marketing requirements.[66] Therefore, we reject Ericsson's request to establish a reduced data rate standard of 384 kbps for a 200 kHz channel. We also reject Dataradio's suggestion to require only those users in urbanized areas to comply with the adopted wideband channel efficiency standard. Dataradio's proposal would result in public safety agencies within the specified urban areas using different equipment than agencies outside of the urbanized areas. We believe that such a result would frustrate our goal of facilitating the achievement of nationwide interoperability. Moreover, Dataradio fails to address both the significant burdens of enforcement, and the confusion that would result from implementing its suggested two-tiered approach. We are, therefore, retaining the nationwide wideband channel data efficiency standard as adopted in the *First Report and Order*. We note, however, that the NCC recognizes the need for further evaluation concerning user needs for wideband data systems,[67] and we may decide to revisit the issue pursuant to further NCC recommendations.

7. Receiver Standards

21. In the *First Report and Order*, we stated that we would require that the NCC fulfill the same requirements regarding recommendation of receiver standards for the nationwide interoperability channels as for the interoperability digital modulation standard.[68] We charged the NCC with recommending the parameters (*e.g.*, sensitivity, selectivity, dynamic range, durability characteristics) to include in the receiver standards.[69] For general use channels, RPCs are required to establish reference values for adjacent channel selectivity, spurious response attenuation, and intermodulation rejection in their plans.[70]

22. FLEWUG asks that we reconsider our decision to have the NCC issue receiver standards.[71] Specifically, FLEWUG urges the adoption of receiver standard provisions that are

[63] *First Report and Order*, 14 FCC Rcd at 172 ¶ 37.

[64] *Id.* at 172 ¶ 37. *See also* PSWAC Final Report at 231, 232.

[65] *First Report and Order*, 14 FCC Rcd at 174 ¶ 41.

[66] APCO Response to Petitions at 8.

[67] NCC Recommendations at 21 ¶ 66.

[68] *First Report and Order*, 14 FCC Rcd at 208 ¶ 121.

[69] *Id.*

[70] *Id.* at 211, 212 ¶ 132. We noted that this approach will allow public safety entities to avail themselves of competitive market choices while establishing a "reference receiver," thereby assisting all parties, including the Commission, in resolving interference disputes. *Id.*

[71] FLEWUG Petition at 23.

established by TIA, and adopted by both the user and vendor communities.[72] FLEWUG recommends that because NTIA has been a proponent of receiver standards for managing the radio spectrum effectively and efficiently, that we use the NTIA Manual of Regulation and Procedures for Federal Radio Frequency Management as an outline for such standards.[73] FLEWUG further recommends that we apply the receiver standards to general use as well as interoperability channels.[74]

23. After considering FLEWUG's comments regarding receiver standards, we reiterate our conclusions presented in the *First Report and Order* as to whether we should establish a certain minimum quality for public safety receivers, particularly for interoperability purposes. We previously noted that the comments in this proceeding did not support a distinction between general use and interoperability operations.[75] We remain concerned that interoperability communications may typically be of greater urgency than ordinary day-to-day public safety communications. To the extent that receiver standards could improve the reliability of interoperability communications systems used in critical safety of life and property circumstances, we believe that such standards may be appropriate. Absent additional information from the public safety community regarding the advantages, disadvantages and feasibility of mandating receiver standards for the 700 MHz band, we believe that the most prudent course of action would be to not adopt receiver standards at this time. We, therefore, decline to adopt FLEWUG's suggested receiver standards, but we nonetheless affirm and reiterate our decision to require that the NCC fulfill the same requirements regarding recommendation of receiver standards for the nationwide interoperability channels as established for the recommendation of the interoperability digital modulation standard. We are aware that the NCC is including the matter of receiver standards in its second year workplan and direct the NCC to report its recommendations in that regard as soon as practicable.

B. Broadcast TV/Land Mobile Interference

24. Some of the petitioners seek reconsideration of our decisions regarding protection requirements between public safety base and mobile stations, television (TV) stations,[76] and DTV stations[77] in the recently allocated 24 megahertz of spectrum in the 700 MHz band for nationwide public safety use. During the transition from analog to DTV service ("DTV transition period"),[78] public safety entities must share the use of this 24 megahertz of spectrum with both analog and digital TV stations.[79] In the *First Report and Order*, we adopted a 40 dB desired-to-undesired ("D/U") signal ratio for calculating co-channel land mobile/TV station geographic separation requirements. We stated that the 40 dB D/U signal ratio is a reasonable value that will provide sufficient TV protection, as prescribed by

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[72] *Id.* at 24.

[73] *Id.*

[74] *Id.*

[75] *First Report and Order*, 14 FCC Rcd at 208, 209 ¶ 121.

[76] Existing TV stations use the traditional analog ("NTSC") format.

[77] DTV refers to any technology that uses digital techniques to provide advanced TV services such as high definition TV, multiple standard definition TV, and other advanced features and services.

[78] The DTV transition period will end December 31, 2006, but may be extended in some markets for the reasons enumerated in Section 309(j)(14)(B) of the Communications Act, as amended, 47 U.S.C. § 309(j)(14)(B).

[79] Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Report and Order*, 12 FCC Rcd 22,953 (1997).

the 1997 Budget Act.[80] Our rules limit co-channel land mobile base station transmitters to a maximum signal strength at the hypothetical TV Grade B contour of 40 dB below 64 dBu, or 24 dBu. We also adopted a 0 dB D/U signal ratio for adjacent channel operations where adjacent channel land mobile transmitters are limited to a maximum signal which can equal the TV Grade B contour signal of 64 dBu at the TV station's hypothetical Grade B contour distance of 88.5 km (55 miles).[81]

25. The *First Report and Order* established a basis for applying the same geographic separation tables already in our Rules for protecting analog TV stations operating in the 470-512 MHz band (TV channels 14-20) to TV stations operating in the 784-806 MHz band (TV channels 60-69).[82] The geographical separation tables for protection of analog TV can be used for both analog TV and DTV service. Although the field strength for DTV noise-limited service is considerably weaker than that required for Grade B analog service, because DTV is considerably more robust the land mobile signal strength does not have to be correspondingly reduced.[83] Data measured for DTV support this conclusion and approximately confirm the D/U ratios established by the *First Report and Order* for protecting DTV.[84]

26. Motorola requests that we revise the technical criteria for protecting TV stations.[85] Motorola states that while the number of TV broadcast stations in the 700 MHz band is relatively small, the interference protection afforded these facilities is large and substantially affects the availability of the spectrum for public safety use.[86] Motorola, with support from APCO and NYSTEC, requests that we modify the co-channel and adjacent channel TV protection criteria to allow greater public safety access to the 700 MHz spectrum, contending that we did not adequately consider all relevant technical information in reaching our decision on this matter in the *First Report and Order*.[87] Similarly, APCO requests that we reconsider the land mobile/TV co-channel separation rules, stating that unless these rules are changed, public safety operation in several key geographical areas will be delayed until the end of the DTV transition in 2006, if not later. Further, APCO contends that Motorola's petition for reconsideration provides further technical evidence supporting its position.

27. Propagation difference between the 470-512 MHz and 746-806 MHz bands. Motorola states that the propagation difference between the 470-512 MHz and 746-806 MHz bands is about 5.3 dB. Consequently, Motorola concludes that this factor can either shorten spacings between land mobile

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[80] *See* 47 U.S.C. § 337(d)(2).

[81] *First Report and Order*, 14 FCC Rcd at 221 ¶ 152; 47 C.F.R. § 90.545.

[82] *First Report and Order*, 14 FCC Rcd at 224-26 ¶ 160-62.

[83] *Id.* at 221 ¶ 153.

[84] *See* page I-3-28 of the Advanced Television Test Center, Inc., report entitled "Record of Test Results for Digital HDTV Grand Alliance System" submitted to the Technical Subgroup of the FCC Advisory Committee on Advanced Television Service, September 8, 1995.

[85] Motorola Petition at 4, 5, 14-25.

[86] *Id.* at 14.

[87] Motorola Petition at 14-24; APCO Petition at 23; NYSTEC Petition at 11.

systems and TV or permit increased transmitter power for 700 MHz land mobile radio systems.[88] While we agree that there is a difference in propagation loss between the two bands, we nonetheless note that the R-6602 propagation curves contained in our Rules were developed to protect television stations operating in the 470 to 890 MHz frequency range as a whole.[89] Although it may be argued that the R-6602 propagation curves are overly conservative in protecting full service analog television transmitters, our experience with both the general public and the industry has shown that these propagation curves have worked successfully since their institution and we are not inclined to make any global changes to these parameters in light of our statutory mandate to protect full-service analog television service and digital television service during the DTV transition period.[90] Moreover, we believe that our Rules provide alternate methods for public safety applicants to meet the TV/DTV protection requirements by: (1) submitting an engineering study to justify other separations to the Commission for approval; or (2) obtaining concurrence from the applicable TV/DTV station(s).[91]

28. TV antenna front-to-back directivity characteristics. Motorola contends that the front-to-back directivity of a television antenna can be considered to be about 15 dB and should be a factor considered in determining the appropriate TV protection criteria.[92] We concur that a directional TV antenna would offer greater protection from land mobile radio interference; however, directional TV antennas only account for a subset of all TV antennas currently in use. The other two types of antennas that are in extensive use are rabbit ear and simple dipole antennas,[93] which have very little, if any, front-to-back directivity. Therefore, we are concerned that any lowering of the existing TV protection criteria could potentially impact TV reception in cases where directional TV antennas are not employed. While protecting DTV might provide some justification for reducing the co-channel protection ratio in view of the greater directivity assumed as a planning factor for DTV service, we decline to do so at this time because we do not want to diminish protection for the full-service analog television service. We have previously noted that we are bound by a statutory mandate to protect this service during the DTV transition period, and again, we note that our Rules provide alternate methods for public safety applicants to meet the TV/DTV protection requirements.[94] Moreover, we believe that making the requested change to the TV protection criteria would sacrifice the simplicity of the protection criteria adopted in the *First Report and Order*, which is premised upon use of the Section 90.309 tables for DTV.

29. Overestimation of the interfering field strength. Motorola notes that the propagation charts in ITU recommendation ITU-R P.370-7, "VHF and UHF Propagation Curves for the Frequency Range 30 MHz to 1000 MHz," predict a lesser degree of time variation than we reference in our Rules.[95]

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[88] Motorola Petition at 14; Comments of Motorola to the Second NPRM, Appendix, at 28, 29. In its analysis of the propagation difference, Motorola utilized FCC Report OCE RS76-01 for the R-6602 curves and band center frequencies of 491 MHz and 776 MHz.

[89] *See* 47 C.F.R. § 73.699.

[90] *See* 47 U.S.C. §§ 337(d)(2), 309(j)(14).

[91] *See* 47 C.F.R. § 90.545(c).

[92] Motorola Petition at 15.

[93] Dipole antennas are straight, typically fixed-length wire antennas. Rabbit ears are a variation on dipole antennas in which the two elements can be moved and the length changed.

[94] *See supra* note 90.

[95] *See* 47 C.F.R. § 73.699.

Motorola contends that, as a consequence, the interfering land mobile signal derived from our F(50,10) curves may be overestimated, thus unrealistically penalizing land mobile radio operations.[96] As noted above, full power analog television stations are required to be protected during the DTV transition period. Our experience with both the general public and the industry has shown that R-6602 curves have worked successfully since their institution. Our present curves are part of our working relationship with Canada and Mexico. Finally, as stated above, our Rules provide alternative methods for public safety applicants to meet the TV/DTV protection requirements. Consequently, we are not inclined to make any changes at this time.

30. Actual versus hypothetical 55-mile TV/DTV contours. Motorola states that in order to provide maximum availability of the 700 MHz spectrum to public safety entities, we should require public safety systems to protect only the actual TV station Grade B (64 dBu) contour and not a hypothetical contour.[97] In support of its proposed requirement, Motorola notes that such a requirement is appropriate given that incumbent broadcast stations will not be permitted to expand beyond their current operating parameters.

31. In the *First Report and Order*, we stated that a geographic separation distance table based on a standard 88.5 km Grade B service contour (an equivalent Grade B for DTV operations) would be more appropriate and practicable than the alternatives we considered.[98] We also expressed concern that limiting TV/land mobile separation to distances specified in a table could prevent public safety entities from fully utilizing the 700 MHz band in several major metropolitan areas until after the transition period ends. Therefore, we decided to permit applicants/licensees to submit an engineering study supporting their proposed TV/land mobile station separations to meet TV/DTV protection requirements utilizing the actual parameters of the land mobile and TV/DTV stations involved. Our approach allows public safety applicants to take into account intervening terrain and engineering techniques such as directional and down-tilt antennas in determining the separation necessary to provide the required protection. Additionally, we decided to allow public safety applicants to "short-space" their proposed facilities (i.e., locate them at distances closer than that permitted pursuant to the Table) if they obtain the approval of the licensees of the TV stations they are required to protect. Thus, under our Rules, public safety applicants may select one of three ways to meet the TV/DTV protection requirements: (1) utilize the geographic separation specified in the Table; (2) submit an engineering study to justify other separations; or (3) obtain concurrence from the applicable TV/DTV station(s).[99] We conclude that by providing for engineering studies as a permissible method (2) for meeting TV protection requirements, our Rules already address Motorola's concerns. On a separate but related matter, we note that Motorola has pointed out a redundancy in our Rules, namely the sentence in Section 90.545(c)(2)(ii) that reads "Control and mobile stations shall keep a minimum distance of 96.5 kilometers (60 miles) from all adjacent channel TV/DTV stations." We will delete this sentence from Section 90.545(c)(2)(ii) given that a minimum distance from the TV/DTV contour is specified earlier in the paragraph.[100]

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[96] Motorola Petition at 14-16.

[97] Motorola Petition at 16-18.

[98] *First Report and Order*, 14 FCC Rcd at 224 ¶ 158.

[99] *See* 47 C.F.R. § 90.545(c).

[100] *See* 90.545(c)(2)(ii) (1999) (required control and mobile stations to keep a minimum distance from Grade B contours of TV/DTV stations).

32. Greater interference rejection on frequencies further removed from adjacent TV channel edge. In its Petition, Motorola provides a table of increasingly favorable D/U ratios as a function of frequency separation from the band edge of an adjacent analog TV channel.[101] The table is based on the FCC/OET TM87-1 Report (April 1986) entitled "Receiver Susceptibility Measurements Relating to Interference between UHF Television and Land Mobile Radio Services." Motorola states that, as reflected in its table, TV receivers exhibit greater interference rejection on frequencies further removed from the adjacent TV channel edge, and that this phenomenon should be exploited to allow TV/land mobile sharing at closer separations when land mobile systems use the frequencies that are not immediately adjacent to the TV station.

33. We concur that land mobile systems operating on frequencies further away in frequency from a channel being used by a TV station may be able to operate at closer separations. However, frequency-dependent geographic separations would require consideration of all 700 MHz band frequencies used by land mobile radio stations. Currently, consideration is only given to the worst case, that of land mobile radio transmitters near the band edge of the protected TV/DTV station thereby greatly simplifying the separation requirements. Further, as noted throughout this section, our Rules provided alternate methods for public safety applicants to meet the separation requirements. Therefore, we decline to make any changes at this time.

34. Motorola also argues that the different polarization of land mobile and broadcast TV transmissions[102] and the dipole factor adjustment[103] are other factors which also could influence reducing TV/land mobile protection criteria. While the different polarization does favor smaller protection ratios, we do not believe that the dipole factor is relevant to interference calculations because it affects reception of desired and undesired stations alike. We conclude, therefore, that most of Motorola's objections can be accommodated in the submission of engineering studies as provided for in Section 90.545 and do not require a change in our Rules.

35. In summary, Motorola has asked that we take into account certain parameters in determining the TV/DTV protection requirements (separation criteria). While we recognize that it may be argued that certain parameters should be taken into consideration when calculating the needed protection, we have declined to do so in this proceeding for the reasons stated above. In addition, we believe that any change in how land mobile/TV protection is calculated should be addressed in a proceeding which looks at all spectrum shared between these services rather than one limited to a particular service band.

C. Eligibility to Hold a License

1. Identity of Licensee

36. In the *First Report and Order*, we adopted a three-pronged test for determining eligibility to hold a license in the 700 MHz band, which follows the definition of "public safety services" contained in Section 337(f) of the Communications Act of 1934, as amended.[104] The three prongs for determining eligibility are: (1) purpose of use; (2) identity of licensee; and (3) compliance of noncommercial

[101] Motorola Petition at 20-22.

[102] *Id.* at 15.

[103] *Id.* at 16.

[104] *See* 47 U.S.C. § 337(f).

proviso.[105] We concluded that entities eligible to be licensed in the 700 MHz band public safety spectrum are: (1) state and local governments; and (2) non-governmental organizations (NGOs) expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of services to protect the safety of life, health or property.[106] We noted that this approach was consistent with our eligibility rules for public safety spectrum outside of the 700 MHz band, where NGOs generally receive some type of approval from state or local government entities before being licensed on such spectrum.[107] Moreover, we adopted a provision that expressly conditions all 700 MHz band licenses issued to NGOs, on the requirement that the NGO continues to meet the public safety service definition of Section 337.[108] We also noted that if a governmental entity rescinds its authorization and the safety of the public requires immediate suspension of the NGO's 700 MHz band operation, the governmental entity should notify the Commission directly in writing of such occurrence and requirement.

37. Non-governmental organizations ("NGOs"). NYSTEC and NPSTC ask us to reconsider our conclusion that NGOs are eligible for licensing when expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of services to protect the safety of life, health or property.[109] These petitioners recommend only allowing NGOs to operate in the 700 MHz band under the license of the governmental entity for which the NGO is providing public safety services.[110] API counters that the conditions for NGO licensing in the 700 MHz band are already sufficiently narrow to ensure that qualified NGOs use the spectrum for public safety services.[111] UTC also opposes the petitioners' suggested additional eligibility restrictions on NGOs, contending that we should have differentiated between NGOs that use spectrum for private communications and those "that provide radio service for a fee."[112] Alternatively, UTC asks that we treat utilities and pipeline companies differently by eliminating the governmental sponsorship requirement as it applies to them.[113] In this regard, UTC avers

[105] *See First Report and Order*, 14 FCC Rcd at 178 ¶ 48.

[106] *See id.* at 180, 188 ¶¶ 54, 56 (citing 47 U.S.C. § 337(f)(1)).

[107] *Id.* at 182 n.143 (citing *Refarming Second Report and Order*, 12 FCC Rcd 14307, 14319 (1999) (eligibility for licensing in Public Safety Pool below 512 MHz is typically established by the governmental status of the applicant; NGOs almost always need governmental approval to be licensed)).

[108] 47 C.F.R. § 90.523(c) (1999); *see also First Report and Order*, 14 FCC Rcd at 183 ¶ 58 n.146 (citing generally *AAT Electronics Corp.*, 93 FCC 2d 1034 (1983), and *P & R Temmer*, 93 FCC 2d 1051 (1983), both *aff'd sub. nom., P & R Temmer v. FCC*, 743 F.2d 918 (D.C. Cir. 1984)).

[109] NPSTC Petition at 5; NYSTEC Petition at 12.

[110] NPSTC Petition at 5; NYSTEC Petition at 12.

[111] API Opposition at 6-9. To respond to situations such as oil spills, API states that many of its members (*e.g.*, oil, gas, and pipeline companies) have emergency response equipment, including telecommunications facilities, assembled and stored for expedited transport to an incident site. *Id.* at 7. In this connection, API states that a streamlined approval process to use the 700 MHz interoperability channels is required so that these API members may use the 700 MHz band interoperability channels as soon as these emergency response communication facilities are needed to respond to an emergency anywhere throughout the country. *Id.*

[112] UTC Opposition at 3 (citing *First Report and Order*, 14 FCC Rcd at 178-183 ¶¶ 50-59).

[113] *Id.* To the extent that UTC seeks reconsideration of our NGO licensing decisions in the *First Report and Order*, these contentions are untimely presented in an opposition pleading, rather than being timely raised in a formal petition for reconsideration. *See* 47 C.F.R. § 1.429(d).

that the public safety role of utilities and pipeline companies is well recognized both by the Commission and local agencies.[114]

38. We concluded in the *First Report and Order* that Congress intended for NGOs to be eligible to hold licenses in the 700 MHz band because the definition of public safety services enumerates certain NGOs along with state and local governments.[115] NPSTC and NYSTEC seek reconsideration of this conclusion based on policy preferences or concerns about NGO licensing,[116] many of which were raised and considered during earlier stages of this proceeding. By contrast, these petitioners do not offer an interpretation of the statute that would be consistent with barring NGO licensing, nor contend that we misinterpreted the statute.[117] We find therefore that these petitions provide no basis for modifying the conclusions in the *First Report and Order* as to NGO licensing.

39. UTC's request to eliminate the governmental sponsorship requirement for utilities and pipeline companies is similarly unpersuasive because the statute requires *all* NGOs to have government sponsorship.[118] In connection with UTC's request, however, we clarify on our own motion that providing radio service to public safety subscribers is not a service for the sole or principal purpose of protecting the safety of life, health, or property. Rather, it is appropriately characterized as commercial use of the radio spectrum. We conclude, therefore, that such radio communication services do not fall within the public safety services definition for which this spectrum is allocated. Moreover, under the *noncommercial proviso*[119] the public safety services for which the 700 MHz band is used must not be made commercially available to the public. In this connection, we concluded in the *First Report and Order* that all providers of *public safety services* are eligible for NGO licensing.[120] We clarify that this conclusion provides no basis for licensing entities (commercial or noncommercial) that provide radio service for a fee because the 700 MHz band is allocated for public safety services.

40. On the other hand, we agree with NPSTC's recommendation to require supporting governmental entities to recertify their NGO licensees at license renewal time.[121] Thus, as part of license renewal, NGO applicants must submit a written statement of continuing authorization by their supporting governmental entity.[122] This recertification requirement will be an additional safeguard towards ensuring that the licensing of the 700 MHz band is in accordance with the statute. For this reason, on our own motion, we will also require recertification as part of NGO modification applications. We believe this

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[114] *Id.* (citations omitted).

[115] *See First Report and Order*, 14 FCC Rcd at 181 ¶ 56.

[116] *See, e.g.*, NPSTC Petition at 5, 6.

[117] In the *First Report and Order*, we concluded that the statutory definition of public safety services is necessarily framed around our licensing powers and, as such, that the omission of Federal entities from this definition is only relevant for licensing purposes. *First Report and Order*, 14 FCC Rcd at 185 ¶ 66.

[118] *See* 47 U.S.C. § 337(f)(1)(B)(ii).

[119] 47 U.S.C. § 337(f)(1)(C).

[120] *First Report and Order*, 14 FCC Rcd at 187, 188 ¶¶ 71, 72.

[121] *See* NPSTC Petition at 5.

[122] We are amending 47 C.F.R. § 90.523(b) as set forth in Appendix C to set forth general requirements for NGO authorization letters.

additional safeguard imposes almost no additional burden on NGOs because license renewal occurs once every ten years and, in all events, NGOs are required to keep the governmental entity apprised of system changes. Thus, we will require NGOs to obtain written consent for their 700 MHz band applications, *i.e.*, initial, modification, assignment, transfer, and renewal, directly from the state or local governmental entity that authorized the NGO to use the 700 MHz band. We clarify that this recertification requirement is an additional safeguard and does not replace or modify the conditional grant that applies to all NGO licenses. For application processing purposes, so long as the NGO applicant submits the required written authorization of such a state or local governmental entity, we will deem these provisions satisfied.

2. State/Local Licensees Allied with Federal Public Safety Service Providers

41. In the *First Report and Order*, we amended Section 2.103 of our Rules so that the criteria for Federal use of the 700 MHz band would better follow the intent of Section 337 of the Act.[123] Under new Section 2.103(b) of our rules, Government stations may use channels in the 764-776 MHz and 794-806 MHz public safety bands with non-Government entities if the Commission finds such use necessary, where:

> (a) The stations are used for interoperability or part of a Government/non-Government shared or joint-use system;
> (b) The Government entity obtains the approval of the non-Government (State/local government) licensee(s) or applicant(s) involved;
> (c) Government operation is in accordance with the Commission's Rules governing operation of this band and conforms with any conditions agreed upon by the Commission and the [NTIA]; and
> (d) Interoperability, shared or joint-use systems are the subject of a mutual agreement between the Government and non-Government entities. This section does not preclude other arrangements or agreements as permitted under Part 90 of the Rules. *See* 47 C.F.R. §§ 90.179 and 90.421.[124]

Requests to invoke the NTIA/FCC process for Federal government use of non-Federal government spectrum in the 700 MHz band must satisfy all four paragraphs of Section 2.103(b).

42. Clarification of Section 2.103(b). Stressing that it is not seeking federal-only systems,[125] FLEWUG asks for clarification that Section 2.103(b) of our Rules provides "co-equal access" to 700 MHz band channels that are covered by an agreement, for an interoperability, shared or joint-use system.[126] According to FLEWUG, Section 2.103(b) is unclear as to whether a Federal governmental

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[123] In Part 2 of our Rules, the term "Government" means Federal government and the term "non-government" means state/local governments and civilians. *See First Report and Order*, 14 FCC Rcd at 185 ¶ 67; *see also* 47 C.F.R. § 2.105(b); Non-Substantive Revisions to the Table of Frequency Allocations, *Memorandum Opinion and Order*, DA 99-2743 (OET rel. Dec. 20, 1999).

[124] 47 C.F.R. § 2.103(b) (1999). Use of the terms "government" and "non-government" are pursuant to the language in the *First Report and Order*, which notes, "In the United States, radio spectrum may be allocated exclusively or for shared use to either government (Federal government) or non-government (state/local governments and civilians)." *First Report and Order*, 14 FCC Rcd at 185 ¶ 67.

[125] *See* FLEWUG *Ex Parte* Letter dated September 16, 1999; FLEWUG *Ex Parte* Letter dated May 20, 1999.

[126] *See* FLEWUG Petition at 4-6. FLEWUG states that 47 C.F.R. § 2.103(b) includes Federal entities obtaining the approval of the licensees for co-equal use of the channels; Federal operations being in accordance with affiliated

entity can maintain its own operations and have a permanent presence on a 700 MHz band system (Interoperability channels or General-use channels) that is licensed to a state or local governmental entity.[127] FLEWUG explains that federal entities that enter agreements with state or local licensees will be committing substantial resources and foregoing other radio-system options. Thus, FLEWUG contends that such agreements must constitute a binding commitment that the state or local government will allow the Federal entity to use the radio system as agreed, *i.e.*, it will not remove the Federal entity in favor of a local or regional interest.[128] Specifically, FLEWUG asks for a clarification that the terms of obtaining co-equal access will be specified as part of the partnership agreements in force among the federal and the state and/or local entities jointly operating the interoperable, shared, or joint-use systems in question under Section 2.103(b)(4) of our Rules. In this connection, FLEWUG requests that we confirm its understanding that approvals granted under Section 2.103(b)(2) will remain in effect throughout the useable life of the systems in question.[129] FLEWUG separately submitted a recommendation to the NCC on this subject.[130] The NCC Recommendations endorse the flexibility that FLEWUG seeks, while noting that Section 2.103(b) of the Rules offers considerable flexibility when agreements are concluded between federal and non-federal entities.[131]

43. We encourage partnering of FCC-licensed state or local government entities with Federal entities in these bands. Such partnering is in the public interest for a variety of reasons, including interoperability, public safety responsiveness to safety of life and safety of property crises, and spectrum efficiency. Section 2.103 provides for a process consistent with Section 337 of the Act, which directed the allocation of this spectrum for public safety services in consultation with the Secretary of Commerce (NTIA) and the Attorney General. In this connection, we note that recent developments in trunking technology and other technologies that maximize spectrum use have made possible radio systems that can accommodate many users and distinct user groups—each group with its own insulated communications network—on the same system.[132] At the same time, however, these systems also offer a high level of built-in interoperability between the distinct user groups sharing a radio system.[133] The funding required to develop the infrastructure necessary for such systems is often too great to permit small public safety agencies to participate in new, sophisticated, spectrum efficient wireless radio systems.[134] These same

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FCC rules and conditions agreed by the Commission and the NTIA; and the interoperable, shared, or joint-use systems being subject to a mutual agreement between the Federal entities and the state and/or local entities. *Id.*

[127] *See* FLEWUG Petition at 4-6. *See also* Joint Commenters (AASHTO, FCCA *et al.*) Joint Reply to Petitions at 7.

[128] *See* FLEWUG *Ex Parte* Letter at 2 (dated May 20, 1999).

[129] FLEWUG Petition at 6. FLEWUG anticipates long-standing agreements that will not terminate unless and until the operation of the system in-question ceases under terms agreed to by all system partners. *Id.*

[130] *See* NCC Recommendations at 23 ¶ 72 (citing Appendix J, Federal Co-Equal Access to Non-Federal Spectrum in the 764-766 and the 794-806 MHz Frequency Band).

[131] *Id.* at 23 ¶ 73. The NCC Recommendations state that because FLEWUG was not specific as to rules the Steering Committee was unable to recommend a definite rule change. *Id.*

[132] *See, e.g., PSWAC Final Report* at 317, 318, 734, 735. Shared, multi-use systems typically serve a wider-area than stand-alone systems and also typically offer more advanced technological features.

[133] *Id.* at 317, 318.

[134] According to the *PSWAC Final Report*, public safety agencies have not been able to implement advanced features to aid in their mission even though a wide variety of technologies, both existing and under development,

agencies, however, might be able to participate in such systems by entering into "Section 2.103(b) agreements."[135]

44. As FLEWUG suggests, each party to an agreement entered pursuant to Section 2.103(b) will be committing substantial resources and relying on the agreed-to radio system to support its provision of public safety services. In this connection, we share FLEWUG's concern that federal entities, as well as Commission licensees, are unlikely to view "Section 2.103(b) agreements" as a viable option unless each party to such an agreement can be reasonably confident that it has bargained for legally binding and enforceable commitments that enable it to access the radio system as agreed.

45. Unlike the typical sharing arrangements entered pursuant to Sections 90.179 or 90.421 of our Rules,[136] agreements entered pursuant to Section 2.103(b) are likely to be long-standing agreements that do not terminate unless and until the operation of the system in-question ceases under either the Commission's Rules,[137] or terms agreed to by all system partners. In all events, the 700 MHz band channels are used for noncommercial services the sole or principal purpose of which is to protect the safety of life, health, or property.

46. NTIA approval. NTIA and the Commission share licensing authority over a number of bands but the Commission has sole jurisdiction over the 700 MHz band because it is allocated exclusively for non-government assignments.[138] In addition to authority over bands that include Federal allocations, NTIA is also charged with managing all Federal government use of radio spectrum regardless of the band involved.[139] Thus, federal entities cannot lawfully use FCC-administered 700 MHz band spectrum without NTIA approval in its capacity of overseer and policy manager of all Federal use of radio spectrum.[140] However, NTIA approval alone does not authorize a Federal entity to transmit electromagnetic energy in the 700 MHz band, as would a license.[141] In the 700 MHz band, that authority

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hold substantial promise to reduce danger to public safety personnel and to achieve greater efficiencies in the performance of their duties. *See, e.g., PSWAC Final Report* at 2.

[135] Recognizing the budgetary constraints that public safety entities face as a matter of course, the PSWAC Steering Committee stated that more sharing and joint use should be encouraged. *See PSWAC Final Report* at 3-4.

[136] 47 C.F.R. §§ 90.179, 90.421.

[137] For example, licenses are issued for ten-year, renewable terms, and a federal entity can only use the 700 MHz band under a Section 2.103(b) agreement for as long as the state or local ally remains licensed.

[138] *See* 47 C.F.R. § 2.106; NTIA Manual § 4.1.3. *See also Reallocation Report and Order*. Section 337 of the Act required the Commission to consult with the Secretary of Commerce and the Attorney General in the reallocation of the 700 MHz band spectrum. See 47 U.S.C. § 337(a)(1).

[139] *See First Report and Order*, 14 FCC Rcd at 184 ¶ 62 (citing 47 U.S.C. § 305; 47 U.S.C. §§ 901-904 (NTIA Organization Act). Section 305 of the Act grants NTIA exclusive authority over "radio stations belonging to and operated by the United States" and requires these stations to use frequencies assigned by NTIA. *See also Federal Spectrum Management Processes Report*, Public Safety Wireless Network, at 3-8 (September 1998).

[140] *See* NTIA Manual §§ 2.1-2.3 (Telecommunications Policy). "Telecommunications policies are made by the Congress, by the Court, by the President, and the [NTIA] with respect to the agencies and establishments of the Federal Government . . ." *Id.* at § 2.2. In this connection, we observed that there may be benefits to providing for the adoption of a single, "blanket" authorization that would confer NTIA's authorization to all Federal entities as described in 47 C.F.R. § 2.103(b) and clarified herein. *See First Report and Order*, 14 FCC Rcd at 186, 187 ¶ 69.

[141] For example, the Commission noted NTIA's policy approval in several proceedings that amended Commission Rules to extend end-user (customer) eligibility to include Federal agencies. *See, e.g.,* In the Matter of Amendment

derives from the Commission's grant of a state or local licensee's request for authority, pursuant to Section 2.103(b) of our Rules, to allow a federal entity to use its licensed frequencies under the terms of an agreement for an interoperability, shared or joint-use system. In this connection, we note that Section 2.103(b)(3) of our Rules provides that the Government operation must be in accordance with our Rules governing operation of this band and must conform with any conditions agreed upon by the Commission and NTIA. Thus, to avoid any uncertainty as to whether Federal entities must conform to our Rules, we will require Federal entities to receive NTIA approval that expressly requires their use of the 700 MHz band to conform to our rules and regulations. We observe that there may be benefits to providing for the adoption of a standard condition or limitation that would apply to all NTIA approvals.

47. Federal Operation is Permissible. "Section 2.103(b) agreements" are in accordance with the Communications Act of 1934, as amended.[142] As noted in the *First Report and Order*, this use of the 700 MHz band by Federal public safety providers falls within the reasonable interpretation of the uses for which the spectrum is allocated because such use will benefit, support, and in some cases be critical to, the successful provision of public safety services by Commission licensees;[143] it is also generally consistent with the consultation provision of Section 337.[144]

48. We are concerned that federal entities may not invest and partner with state and local government 700 MHz systems unless they have some assurance that their operations are valid under the Communications Act and other applicable Federal law. Otherwise, they could face the prospect of building a system and expecting to share it, only to be told by a state or local government that they cannot legally use the system. The above discussion should suffice to allay any such fear. Moreover, Section 2.103 agreements also are consistent with Section 337 because, by definition, a state or local governmental licensee that is a party to such an agreement has voluntarily agreed to the Federal use of its licensed frequencies. In this connection, we concluded in the *First Report and Order* that state and local governmental entities are eligible for licensing in the 700 MHz band without further showing as to

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of Part 90, Subparts M and S of the Commission's Rules, PR Docket No. 86-404, *Report and Order*, 3 FCC Rcd 1838 (1988), *Memorandum Opinion and Order*, 4 FCC Rcd 356, 356-57 (1989); In the Matter of Amendment of Part 90 of the Commission's Rules to Expand Eligibility and Shared Use Criteria For Private Land Mobile Frequencies, PR Docket No. 89-45, *Report and Order*, 6 FCC Rcd 542 (1991); In the Matter of Federal Access to Low Power 18 GHz Private Operational Fixed Microwave Systems, PR Docket No. 92-15, *Report and Order*, 8 FCC Rcd 3210 (1993).

[142] In addition to the specific questions posed concerning Section 2.103(b), we note that FLEWUG's request for clarification indirectly raises issues concerning the "intersection" of contract law and federal communications law that could occur under a Section 2.103(b) agreement. We believe that consideration of such issues is premature and would require us to speculate over what will be highly fact-specific scenarios. Generally speaking, the parties to Section 2.103(b) agreements are required to comply with FCC rules and policies, so the agreements themselves should not contain terms that violate our rules and policies. We are confident that the parties will conduct themselves in compliance with these strictures, and we therefore do not consider the agreements to be inherently at odds with any of the requirements of the Communications Act. Moreover, to the extent that the agreements comply with the parties' obligations under federal communications law, their rights under the agreements would be controlled by applicable contract law.

[143] Put differently, these alliances are consistent with Section 337 because the allied use of the spectrum can fairly be said to be "for" the public safety services for which this spectrum is allocated.

[144] NTIA states that Congress required the Commission to consult with the Secretary of Commerce and the Attorney General in the reallocation of the 700 MHz band spectrum because it recognized the vital role that Federal agencies play in providing public safety related services to the American people. *See also* WT Docket No. 96-86, *Ex Parte Letter* filed with the Commission on July 22, 1998, from Janet Reno, Attorney General, and William M. Daley, Secretary of Commerce, to the Honorable William E. Kennard, Chairman, FCC.

eligibility.[145] We now conclude that requests from among this same class of applicants/licensees that satisfy subsections (1) through (4) of Section 2.103(b) of our Rules establish *per se* that such Federal use of the licensee's 700 MHz band channels is necessary. In this connection, we emphasize that a request under Section 2.103(b) is the state or local licensee's representation to the Commission that it has determined that its agreement with the federal entity (for an interoperability, shared or joint-use system) is necessary to protect the safety of life, health, or property.

49. Contractual nature of "Section 2.103(b) agreements." We expect that Section 2.103(b) agreements will be negotiated between state and local governments, on the one hand, and Federal entities, on the other hand. Many terms and conditions will serve as consideration for both the licensees and Federal entities to reach such agreements, including the nature of the service and termination rights and responsibilities.[146] We are not the appropriate forum to litigate disputes that arise between parties over specific terms of negotiated "Section 2.103(b) agreements."[147] Rather, as with most contract disputes, actions for injunctive relief, damages, or specific performance are more appropriately resolved by a local court of competent jurisdiction.[148]

50. Scope of clarification. Today's clarification is operative only as to the general use spectrum[149] because we have not yet adopted a licensing method for the interoperability spectrum. Moreover, both the interoperability spectrum and the "reserve" spectrum are subject to further Commission action in response to the comments to the *Third Notice*.[150] Thus, we have already concluded that "Section 2.103(b) agreements" are in accordance with Section 337 of the Act,[151] which governs all 700 MHz band spectrum; we are merely reserving decision on how best to implement this conclusion for the interoperability and "reserve" spectrum.

51. Implementation matters—Federal Coordinated Use of a 700 MHz System Licensed to a State or Local Entity.[152] Federal public safety entities proposing to use frequencies licensed to a state or local entity first must coordinate the terms and conditions of their frequency use with the state or local licensee. Upon written agreement of the terms and conditions, the state or local licensee sends a letter to the Federal entity's headquarters that summarizes the interoperability, shared, or joint-use agreement,

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[145] *See First Report and Order*, 14 FCC Rcd at 180, 181 ¶ 54 (Commission concluded that this approach reflected the intent of the statute better than less inclusive proposals).

[146] *See supra* note 137 and accompanying text.

[147] *See, e.g.*, Metromedia Company, 3 FCC Rcd 595 (1988) (contractual problems should be asserted in state courts because those courts have the expertise to handle these types of disputes); John F. Runner, 36 Rad.Reg.2d 773, 778 (P&F 1976) (local court of competent jurisdiction, not the FCC, is the proper forum to resolve private disputes).

[148] Jurisdiction over civil suits in which the United States is a plaintiff or a defendant generally resides in the district courts of the United States or the United States Court of Federal Claims. *See* 28 U.S.C. §§ 1345, 1346.

[149] We noted that RPCs could begin the planning process for general use spectrum upon release of the *First Report and Order*. Applicants are free to apply for general-use channels once their planning committee files and the Commission approves the regional plan for the applicant's region. *First Report and Order*, 14 FCC Rcd at 157 ¶ 8.

[150] In the *Third Notice, supra* note 1, we sought comment on how to license the interoperability spectrum and on how to designate and license the remaining 8.8 megahertz of "reserve" spectrum.

[151] *See First Report and Order*, 14 FCC Rcd at 186 ¶ 68.

[152] The following excerpt is adapted from PSWN's *Federal Spectrum Management Processes Report*.

including the following terms: (1) the expiration date of the agreement; (2) the total number of frequencies covered by the agreement; and (3) if known at the time of the request, the specific frequencies covered by the agreement. The state or local licensee must also certify that it approves the Federal entity's use of its licensed 700 MHz band frequencies pursuant to the terms of the Section 2.103(b) agreement and request that the Section 2.103(b) agreement be added/attached to its license as an irrevocable special condition. The complete written agreement will not be routinely filed with the Commission; the licensee must retain a copy with its station records and provide it to the Commission upon request.

52. The Federal entity must ratify the letter and submit it along with the frequency application data to the Frequency Assignment Subcommittee ("FAS") of the Interdepartment Radio Advisory Committee ("IRAC") for review.[153] Additionally, a copy of this letter along with the frequency application data is also submitted to the Commission for its approval. The Commission responds to this action through the normal FAS voting process. If the Commission grants the state or local licensee's Section 2.103(b) request to share the use of its licensed 700 MHz band channels with a Federal public safety entity pursuant to the terms of the parties' "Section 2.103(b) agreement," this authority will be noted as a special condition of the license that will also serve to record the existence of a "Section 2.103(b) agreement" concerning the 700 MHz band license in question.

53. As with traditional PLMR sharing arrangements, the licensee remains fully responsible for all operations under its Commission license.[154] We further clarify that once the Commission grants a state or local licensee's Section 2.103(b) request, the licensee is precluded from raising any claim or complaint of harmful interference as to the federal entity(s) operation pursuant to the agreement. We also further clarify that "Section 2.103(b) authority" is not assignable nor transferable without prior Commission consent.

54. Summary. State or local governmental licensees in the 700 MHz band can allow an unlicensed entity to use their stations—on a revocable-at-will or "guest" basis—pursuant to Sections 90.179 and 90.421 of the Commission's Rules.[155] In the *Third Notice*, we proposed revisions to Section 90.179 that would allow state and local governmental licensees in the 700 MHz band the option to similarly share the use of their stations with Federal public-safety entities — on a revocable-at-will or "guest" basis.[156] Section 2.103(b) provides the public safety community a new sharing option for the 700 MHz band under which the Commission authorizes its state or local governmental licensee to allow a Federal public safety entity to use the licensed channels pursuant to the terms of a written "Section 2.103(b) agreement" between the licensee and the Federal entity. Put differently, Section 2.103(b) gives each governmental licensee the option to exercise its rights and privileges as a Commission licensee by entering a radio-system alliance with a federal entity (an agreement with a Federal entity for an interoperability, shared or joint-use system) whenever the licensee determines that such an alliance is necessary for the provision of public safety services.

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[153] IRAC advises NTIA in carrying out its spectrum management activities.

[154] Federal operation must be in accordance with our Rules and must conform with any conditions agreed upon by the Commission and NTIA and, as discussed above, we will require Federal entities to receive NTIA approval that expressly requires their use of the 700 MHz band to conform to our rules and regulations. *See generally NTIA Manual* at § 7.12 (Government use of frequencies authorized to non-Government stations under Part 90 of FCC Rules, *inter alia*, "shall be in accordance with [FCC] Rules and Regulations").

[155] *See, e.g., First Report and Order*, 14 FCC Rcd at 187 ¶ 70.

[156] *See Third Notice*, 14 FCC Rcd at 234 ¶ 183.

D. Administration

1. Regional Planning

55. In the *First Report and Order*, we adopted a planning process for the general use channels[157] that calls for RPCs to determine the specific uses for these channels.[158] By way of background, the Commission tentatively concluded in the *Second Notice* that the regional planning approach afforded the flexibility to accommodate the wide variety of communications requirements in different areas of the Nation; for that reason the Commission proposed to use a regional planning approach for all of the 700 MHz band similar to that which governs the management of public safety spectrum in the 821-824 MHz and the 866-869 MHz bands (800 MHz).[159]

56. Under the 800 MHz planning process, the Commission established certain common, national requirements, including eligibility for licensing,[160] and divided the Nation into fifty-five planning regions that had considerable autonomy to develop plans that met their different communications needs.[161] However, because radio signals do not stop at geopolitical boundaries, the Commission also established that regions are not electromagnetic "islands" wherein licensees can transmit radio signals without regard to neighboring regions. In this connection, the Commission concluded that inter-regional cooperation and concurrence was the best, most cost effective, and least complicated method for avoiding cross-border harmful interference problems between regions.[162] Each region then formed an 800 MHz RPC made up of members of the public safety community to develop a plan focused on how the available spectrum could best be used to satisfy the spectrum requirements of all eligible entities within the region.[163] Most of the fifty-five planning regions were designed along state boundaries[164] but some states were divided into several, intrastate regions,[165] or included entirely, or partially, in multi-state regions.[166]

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[157] The Commission designated a total of 12.6 MHz of spectrum, approximately 53 % of the 700 MHz band, for general (*i.e.* local, regional or state) use. *First Report and Order*, 14 FCC Rcd at 157 ¶ 8.

[158] RPCs have been free to begin this planning process since release of the *First Report and Order*. *Id.*

[159] *See Second Notice*, 12 FCC Rcd at 17,757, 17,758 (citing Development and Implementation of a Public Safety National Plan and Amendment of Part 90 to Establish Service Rules and Technical Standards for Use of the 821-824/866-869 MHz Bands by the Public Safety Services, GEN Docket No. 87-112, *Report and Order*, 3 FCC Rcd 905, 906 (1987) (*National Plan Report and Order*).

[160] National Plan Report and Order, 3 FCC Rcd at 906.

[161] *See First Report and Order*, 14 FCC Rcd at 160 ¶ 10 n.3 (citing *National Plan Report and Order*).

[162] *See First Report and Order*, 14 FCC Rcd at 195 ¶ 88.

[163] *See National Plan Report and Order*, 3 FCC Rcd at 910-12. RPC membership was open to all eligible user groups. *Id.* at 910.

[164] *See* Appendix D of the *First Report and Order* for a list of the current regions for the 800 MHz band.

[165] The State of California includes all of Region 5 (California-South) and Region-6 (California-North). Similarly, the State of Texas includes all of Region 40 (Texas-Dallas), Region 49 (Texas-Austin), Region 50 (Texas-El Paso), Region 51 (Texas-Houston), Region 52 (Texas-Lubbock), and Region 53 (Texas-San Antonio).

[166] Portions of the following states were either in more than one region or in regions comprised of more than one state (Regional numbers are shown as follows (8)): Connecticut (8, 19), Delaware (28), Illinois (13, 54), Indiana (14, 54), Maine (19), Maryland (20), Massachusetts (19), Michigan (21, 54), New Hampshire (19), New Jersey

APCO, as the certified frequency coordinator representing these eligible users, was directed to appoint a local convener to organize and publicize the initial meeting.[167] After the plan was approved by the Commission, applications were normally submitted to the committee in accordance with the procedures contained in the plan, and then, if approved, the applicant would forward the applications to APCO for coordination and filing with the Commission.

57. The 700 MHz planning process that we adopted in the *First Report and Order* is similar to the 800 MHz process,[168] although we clarified that 700 MHz RPCs are organizations separate and distinct from 800 MHz RPCs. We also clarified that if a 700 MHz RPC defaults or disbands, then the four certified frequency coordinators for the 700 MHz band are authorized to carry out that RPC's responsibilities on an interim basis.[169] We also clarified the coordination requirement of proposed plan modifications with adjacent regions by requiring the submission of letters of concurrence, signed by the chairperson of each adjacent region, to the Commission with a region's modification request.

58. We also added several "opt out" options after considering comments that raised concerns related to the use of multi-state regions for 800 MHz planning.[170] First, RPC members from each state that is included entirely within a multi-state region may "opt out" of the multi-state region to form a new RPC that conforms to the state's geographic boundaries.[171] Next, RPC members from a state that has portions of its state included in more than one region (*i.e.*, a state divided into several intrastate RPCs or a state with a portion(s) included in multi-state RPC) may "opt out" of the multiple regions to form a new RPC that conforms to the state's geographic boundaries.[172] Finally, RPC members from each state that is divided among multi-state regions — that want to consolidate without having to form a new, separate region — may shift the whole state into one of the existing multi-state regions (that previously included a

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(8, 28), New York (8, 30, 55), Pennsylvania (28, 36), Rhode Island (19), Vermont (19), Virginia (20, 42), Washington, D.C. (20), and Wisconsin (45, 54).

[167] *National Plan Report and Order*, 3 FCC Rcd at 910. Furthermore, APCO was required to submit to the FCC a list of all the conveners within 45 days of the release date of the *Report and Order*. *Id.*

[168] In the *First Report and Order*, we agreed with the majority of the commenters' assessment that the regional planning approach has, for the most part, succeeded in ensuring that the six megahertz of public safety spectrum in the 800 MHz band was assigned fairly and efficiently and put to its best, most appropriate, and most efficient use for public safety services. *First Report and Order*, 14 FCC Rcd at 191 ¶ 78.

[169] If a region does not choose to administer its band plan, we will permit the four certified frequency coordinators for the 700 MHz public safety band to continue processing applications consistent with the existing plan. If an RPC disbands without adopting a 700 MHz plan (unless the RPC disbanded as part of the "opt out" process) then the four certified frequency coordinators for the 700 MHz public safety band are authorized to adopt one default plan and jointly file it for review. Upon FCC approval, the coordinators would process applications based on the default plan and any amendments or modifications to the plan would require prior FCC approval. The coordinators' authority to use the plan would terminate upon the filing of a regional plan for the region or any of its members. *See First Report and Order*, 14 FCC Rcd at 196 ¶ 89.

[170] One commenter noted that the use of multi-state regions often hampers the ability of states to coordinate statewide systems. *See First Report and Order*, 14 FCC Rcd at 192 ¶ 80 citing Pennsylvania Comments at 11, 12. Another commenter noted that states in multi-state RPCs have been hampered by regional politics and have been unable to obtain frequencies they vitally need. *See First Report and Order*, 14 FCC Rcd at 192 ¶ 80 (citing Joint Comments at 13).

[171] *See First Report and Order*, 14 FCC Rcd 192 at ¶ 80.

[172] *Id.*

portion of the state).[173] We specified that for the RPC members from a state to exercise an "opt out," there must be a consensus to withdraw among all those representatives to an RPC from that particular state.[174] In this connection, we noted that RPC members from a state wishing to "opt out" of their existing regional boundaries should do so within 120 days of the effective date of the *First Report and Order*.[175] We also decided, however, that the deadline date by which states must indicate any "opt out" decisions would be as specified in a Public Notice.[176]

59. Use of RPCs; Membership. FLEWUG claims that we must reform shortfalls in the RPC process because the planning process is not adequately inclusive of the public safety community. Specifically, FLEWUG argues that the 800 MHz RPCs have been dominated by law enforcement agencies to the exclusion of other public safety officials, and that many of the commenters who favor the RPC process have vested interests in retaining the *status quo*.[177] FLEWUG also argues that we may have oversold the success of the RPC process by inadequately balancing all of the views represented in the record. Specifically, FLEWUG disagrees with our observation that a majority of commenters considered the 800 MHz regional planning approach to be successful, for the most part.[178] FLEWUG's reforms would include requiring every RPC to have at least one Federal representative, selected by FLEWUG, with full membership authority.[179] APCO opposes FLEWUG's petition in this regard and it notes that no petitions for reconsideration on this issue were filed by state or local government agencies, or by organizations representing their interests.[180]

60. We continue to believe that the regional planning approach is a reasonably proven and successful method of ensuring that 700 MHz band public safety spectrum is assigned fairly and put to its most appropriate and efficient use. As discussed in the *First Report and Order*, the RPC approach also facilitates accommodation of a wide variety of localized public safety communication requirements in different areas of the nation, and it is noteworthy that participants in 800 MHz regional planning now have up to ten years of regional spectrum-planning experience. Many commenters to the *Second Notice* agreed that the 800 MHz RPC process has been successful for the most part and many urged retention of a similar RPC process for the 700 MHz band.[181] FLEWUG's Petition is unavailing because it largely

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[173] *Id.*

[174] *Id.* at 194 ¶ 85.

[175] *Id.*

[176] *Id.* at 194 ¶ 85 n.219 and accompanying text.

[177] FLEWUG Petition at 8.

[178] FLEWUG Petition at 6-8. FLEWUG contends that the comments specifically cited in note 199 of the *First Report and Order* do not necessarily represent the majority view because the Commission should have given more weight to comments filed by FLEWUG and others. *Id.* at 7 n.23 citing the following pleadings that were filed in response to the *Second Notice*: APCO Comments at 2, Reply Comments at 3; Joint Commenters at 6; NLC Comments at 3; Richardson, TX Comments at 3; and Pennsylvania Comments at 9 (the full names of these commenters are set forth at Appendix C of *First Report and Order*).

[179] FLEWUG Petition at 9, 10.

[180] APCO Opposition at 9.

[181] According to a 1997 mail survey of the interoperability experiences and needs of law enforcement agencies across the nation, sheriffs, local police, and special police clearly preferred local (multi-jurisdiction) planning over State, multi-State, or national interoperability planning. *See National Institute of Justice Research Report; State and*

restates concerns about the 800 MHz planning process that it presented in comments to the *Second Notice* and we believe the record amply demonstrates substantial consideration of FLEWUG's views throughout this proceeding. For example, to address concerns of FLEWUG and other commenters about 800 MHz RPCs, we revised and added elements to the 700 MHz planning process to help ensure that RPCs are representative of all public safety entities in their regions.[182] Additionally, FLEWUG's Petition fails to consider our departure from the tentative conclusion to use RPCs for all of the 700 MHz band as well as our *Third Notice* request for comments on issues related to RPCs. We also note that several of the commenters referenced in FLEWUG's petition did not themselves seek reconsideration of our underlying decision to use RPCs[183] and that one of the cited commenters states that it "strongly supports the Commission's decision to rely on [RPCs] for most of the 700 MHz spectrum . . ."[184] Nor does FLEWUG's Petition provide a persuasive basis for requiring every RPC to have at least one Federal representative with full membership authority.[185] The channels set for regional planning in the *First Report and Order* are the general use channels, which are designated for local, regional or state use. Federal entities are not eligible for licensing in the 700 MHz band. Federal entities that provide public safety services within a given region will generally have a right to participate in the planning process, on a nonvoting basis, and particularly as to planning matters that are not related to applications and licenses.[186] Moreover, when federal entities are allied with state or local governmental applicants/licensees, pursuant to "Section 2.103(b)" agreements that involve general use spectrum, the federal entity will participate in the regional planning/review process along with the state or local government that is prosecuting the request.[187]

61. RPC Authority and Responsibilities.[188] APCO asks us to clarify that RPCs are authorized to prioritize the "highest and best" use(s) of the 700 MHz band spectrum from among all eligibles as well

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Local Law Enforcement Wireless Communications and Interoperability: A Quantitative Analysis, ix, 61 (Jan. 1998) (*NIJ Report*). The National Institute of Justice (NIJ) is a component of U.S. Department of Justice, Office of Justice Programs. The *NIJ Report* is the result of an NIJ-sponsored study designed to provide a baseline portrait of law enforcement agencies' experiences with wireless telecommunications equipment for routine operations and interoperability. *Id.* at 79. A follow-on study is currently underway to collect similar information from the fire, emergency medical, and emergency management communities. *See id.* at ix.

[182] *See, e.g., First Report and Order*, 14 FCC Rcd at 193, 194 ¶ 83, 84.

[183] For example, the Joint Commenters did not petition for reconsideration of our underlying decision to rely on RPCs. *See* AASHTO Petition at 4. *Accord* APCO Opposition at 9.

[184] *See* APCO Petition at 18.

[185] *Accord National Plan Report and Order*, 3 FCC Rcd 913, 914.

[186] RPC meetings are public and public notice is required. *See, e.g., First Report and Order*, 14 FCC Rcd at 193, 194 ¶ 84.

[187] *See* State/Local Licensees Allied with Federal Public Safety Service Providers, *supra* section C.2, wherein we address FLEWUG's request to clarify matters related to Federal use of the 700 MHz band.

[188] Several petitioners seek reconsideration of decisions in the *First Report and Order* related to the relationship between the NCC and the RPCs. These issues are discussed under National Planning, *infra* section D.2. In addition, FLEWUG raises issues related to RPC responsibilities and the role of frequency coordinators in the event an RPC defaults or disbands. These issues are discussed below under RPC Funding in this section. We also clarify certain matters related to the role of RPCs and frequency coordinators in the planning and application process for the 700 MHz band general use channels. These matters are discussed under Frequency Coordination; Common Data Bases, *infra* section D.3.

as to scrutinize the qualifications of NGOs during the review process.[189] California recommends that NGO licensees be subject to initial and periodic reaffirmation by the RPC to ensure that the overall design of each NGO radio system is consistent with its then-current contract.[190] NPSTC asks whether the Commission expects RPCs to review and approve each NGO system design for necessary and appropriate coverage.[191] UTC contends, however, that RPCs should not have a "veto power" over local public safety agencies that sponsor NGOs.[192] API adds that oil and gas companies that receive governmental approval should not need RPC approval to use interoperability channels.[193] APCO also contends that the Commission, or the NCC, must clarify whether RPCs are: (1) authorized to make frequency-specific assignments; or (2) limited to allotting channels among users or types of users, thus leaving it to applicants and coordinators to identify specific frequencies to be used.[194]

62. We clarify that RPCs are authorized to prioritize the "highest and best" use(s) of the 700 MHz band general-use spectrum from among all eligibles as well as to examine claims of eligibility for licensing.[195] As noted above, the 700 MHz planning process is similar to the 800 MHz planning process, wherein the Commission specifically addressed the fact that it would not be possible to grant requests for assignments to everyone who was eligible to be licensed. In this connection, we clarify that the same analysis applies for 700 MHz regional planning: if there is not enough spectrum for all eligibles, the highest priority must be given to those organizations most fundamentally involved in protection of life and property.[196] Moreover, we conclude that RPCs are in the best position to determine the services of the greatest importance to public safety in their region. Thus, as was the case for 800 MHz planning, we clarify that each RPC is authorized to make these determinations for 700 MHz regional planning.[197] We clarify in this connection that RPCs must ensure that their committees are representative

[189] APCO Petition at 17, 18. APCO notes that RPCs must develop procedures for ensuring fair and efficient channel allotments among eligible applicants, *id.* citing *First Report and Order*, 14 FCC Rcd at 193, 194 ¶ 84, but it contends that unscrupulous, for-profit NGOs could seek 700 MHz band licenses under the "veil" of public safety, using unsophisticated agencies as unknowing "pawns." *Id.*

[190] California Petition at 9-11. California notes an NGO's radio-coverage needs will fluctuate over time because individual contracts for service will come and go as the bid/rebid process moves along. *Id.* at 10. California is also concerned that as an NGO contracts with multiple jurisdictions in a single area which may not be contiguous, the NGO is likely, for economic reasons, to design a system which covers all of the contracted area with a minimum of infrastructure. The problem, according to California, is that the NGO's coverage area is likely to extend over areas for which the NGO does not have a contract to provide services. *Id.* at 10.

[191] NPSTC Petition at 5. NPSTC states that if RPCs are to monitor spectrum use, the Commission must copy the relevant RPC with any/all Commission actions addressed to licensees within a given region. *Id.*

[192] *See* UTC Opposition at 2-5.

[193] *See* API Opposition at 6-9.

[194] APCO Petition at 18, 19.

[195] In the *Second Notice*, the Commission tentatively concluded that its review of the regional plans, and the opportunity for public comment during the review process, would sufficiently ensure the adoption of fair and reasonable assignments. *Second Notice*, 12 FCC Rcd at 17,762 ¶ 121.

[196] The Commission first set this planning standard for 800 MHz regional planning. *See National Plan Report and Order*, 3 FCC Rcd at 906.

[197] *National Plan Report and Order*, 3 FCC Rcd at 906, 907. Where a regional plan did not accommodate all eligible entities, the Commission required an explanation of the criteria used to determine which eligibles were to be given assignments. *Id.* at 907, 911.

of all public safety entities in their regions.[198] With respect to API's concern regarding RPC approval on NGO use of interoperability channels, we note that the use and administration of interoperability spectrum are matters that we requested the NCC to study.[199] Thus, we believe that the substance of API's concern should be presented and addressed in the context of our review of the NCC's recommendations on these matters.

63. In addition to establishing the region's priorities and allotting channels among users or types of users, we clarify that RPCs also have the option to assign discrete frequencies or to leave it to applicants and coordinators to identify specific frequencies to be used. While not a "cure all" of RPC funding issues, this option should provide some measure of assistance to RPCs without sufficient resources to assign discrete frequencies and establish other technical parameters to each entity to be licensed under the plan. We further clarify that, similar to 800 MHz regional planning, the frequency coordination process applies whether the RPC assigns discrete frequencies or leaves it to the applicants and coordinators to identify the specific frequencies to be used.

64. RPC Funding. APCO maintains that we must develop or at least sanction a funding mechanism for the RPCs. APCO states that RPCs will have significant out-of-pocket expenses and that while some in-kind costs might be absorbed by agencies sending representatives to RPCs, most of the overhead expenses will be left unresolved.[200] According to APCO, we should either adopt a cost-recovery proposal, or require the four public safety coordinators to jointly develop a mechanism for Commission review.[201] APCO states that it is willing to provide "upfront" financial support for the RPCs if we provide a mechanism for recovering those costs.[202]

65. FLEWUG contends that we continue to delegate responsibility to RPCs and to rely upon them to perform significant Commission business without allocating a single dollar of federal funding to support RPC operations.[203] Stating that RPC operations are a fiduciary responsibility of the Commission, FLEWUG urges that we reconsider the record on this issue and determine that federal funding by the Commission is essential to the success of the regional planning approach of administering bandwidth for public safety purposes.[204] FLEWUG adds that we relied too heavily on the voluntary, unfunded, informal, and unevenly implemented regional planning process and that this reliance is not an appropriate governing response to the high priority, nationally critical public safety matters vested in the 700 MHz

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[198] In the *Third Notice*, we sought comment on whether to allocate a portion of reserved spectrum for direct licensing to states. *See First Report and Order*, 14 FCC Rcd at 230-33 ¶¶ 174-80. Specifically, we sought comment on what measures would be appropriate to ensure that RPCs are open, inclusive and accountable to state licensing. *Id.* at 232 ¶ 178. If the Commission implements state licensing in response to the comments submitted to the *Third Notice*, RPCs must ensure that their committees are also representative of the participating state agencies.

[199] In the *Third Notice*, we sought comment on licensing and administration of the 700 MHz band interoperability channels. *Id.* at 233, 234 ¶ 182.

[200] APCO Petition at 18-22. APCO's examples of likely expenses include publication of notices, photocopies, telephone charges, travel costs, meeting expenses, computers and engineering studies. *Id.*

[201] *Id.*

[202] *Id.*

[203] FLEWUG Petition at 14.

[204] *Id.* at 14, 15.

band.[205] In connection with its concerns about the increasing dependence on RPCs, FLEWUG also opposes our decision to authorize the certified frequency coordinators for the Public Safety Pool to carry out an RPC's responsibilities on an interim basis if an RPC defaults or disbands. In this connection, FLEWUG avers that frequency coordinators have financial interests in how public safety spectrum is managed.[206]

66. FLEWUG's concerns about the Commission delegating fiduciary responsibility[207] to RPCs and not allocating Federal funds to RPCs provide no basis for modifying the decisions in the *First Report and Order* related to 700 MHz regional planning. First, as discussed in the *First Report and Order*, we will review each regional plan, and will do so only after allowing for public comment. Moreover, we will also review each application for a license. Next, FLEWUG's suggestion that we should allocate funds to RPCs is unavailing because FLEWUG provides no statutory provision under which we would be authorized to do so.[208] As with many voluntary, collaborative endeavors, funding issues are not easily resolved. Nonetheless, we decline any suggestion that the merits of the regional planning process should be defined by these inevitable funding issues that are a challenge to all stakeholders precisely because the RPC process is meritorious. FLEWUG's concerns about our reliance on frequency coordinators is also misplaced because frequency coordinators provide a valuable service that we are specifically authorized by statute to accept.[209] Turning to APCO's cost-recovery proposals, we note that, as discussed below, the established frequency coordination process may provide opportunities for RPCs to mitigate some funding issues.

67. RPC Boundaries/"opt out" procedures. FLEWUG states that the 120-day period is too short[210] and AASHTO asks that we allow states a one-year period to "opt out" of the designated regional planning process.[211] Pennsylvania requests that we clarify the term "consensus" to mean "simple majority" with respect to the two "opt-out" options (where we required RPC members within a state to reach a "consensus" decision)[212] and several timing matters related to "opt-out" and other deadlines.[213]

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[205] *Id.*

[206] *Id.* at 15. "The Commission should not continue to depend upon RPCs to accomplish tasks that fall within the Commission's mandate without addressing the numerous shortfalls associated with RPCs and without providing the NCC with sufficient oversight authority for the RPCs." *Id.*

[207] *But see* FLEWUG Comments at 18, 19 (FLEWUG believes that oversight responsibilities and decision-making authority should reside in the NCC, not the Commission).

[208] *But see* Omnibus Consolidated and Emergency Supplemental Appropriations Act of Fiscal Year 1999 (Congress provided $1.95 million for new Commerce Department initiative to address critical need for radio communications among Federal, state and local emergency officials). *See* News Release, Commerce Leads Effort to Advance Radio Communication Between All Levels of Governments During Emergencies, U.S. Dept. of Commerce (Jan. 14, 1999).

[209] *See* 47 U.S.C. § 332(b).

[210] FLEWUG Petition at 11. FLEWUG asserts that many 800 MHz RPCs are disbanded or inactive. *Id.* (citing PSWN Program 800 MHz Study, Appendix C, at 32, 33). FLEWUG therefore asserts that it is unreasonable to expect representatives from states that wish to "opt out" of regions to convene the RPC within 120 days after release of the *First Report and Order*, with public notifications at least 60 days prior to the meeting. *Id.* (citing *First Report and Order*, 14 FCC Rcd at 195 ¶ 86 n.220).

[211] AASHTO Petition at 4.

[212] Pennsylvania Petition at 2, 3.

Disagreeing with Pennsylvania, APCO contends that the term "consensus" alone is adequate, and notes that the requirement is especially useful where participation is open to all eligibles.[214] FLEWUG would have us redraw all RPC boundaries to conform to state boundaries. FLEWUG also contends that the "opt out" provisions are insufficient to address problems in multi-state regions that have hampered coordination of statewide channel assignments.[215]

68. We decline FLEWUG's request to require all RPCs to conform to state boundaries because we continue to believe that the "opt out" options are the more appropriate mechanism in the context of voluntary committees consisting primarily of members of the public safety community that are planning how to use radio spectrum to meet their communication requirements. On the other hand, we grant the petitions for clarification or extension of the 120-day period, in part, by directing our Wireless Telecommunications Bureau to issue a Public Notice that addresses RPC implementation matters as necessary to implement our conclusions in the *First Report and Order* related to regional planning for the general use channels. In this connection, we direct that the deadline date for reporting the exercise of "opt out" decisions shall be at least 120 days after the release date of the Public Notice.

2. National Planning

69. In the *First Report and Order*, we stated that the comments filed in response to the *Second Notice* in this proceeding "strongly support the need for national planning" for both the spectrum in the 700 MHz band designated for interoperability purposes and the spectrum designated for general use.[216] Accordingly, we stated that we would charter an advisory committee designated as the Public Safety National Coordination Committee ("NCC") for the purpose of addressing and advising the Commission on certain public safety communications matters, and that we would do so pursuant to the Federal Advisory Committee Act ("FACA").[217] We decided to charter the NCC as a federal advisory committee after noting that our most effective activities with the public safety community have been within the formal structure of the National Public Safety Advisory Committee ("NPSPAC") and the Public Safety Wireless Advisory Committee ("PSWAC").[218] Moreover, we noted that using FACA procedures would provide formality to the NCC and ensure participation by representatives of all elements of the public safety community.[219]

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[213] *Id.* at 4, 5.

[214] APCO Response at 2, 3. According to APCO, while a "consensus" is admittedly a difficult standard, it provides an incentive for the "majority" to convince the "minority" of its position, or to work towards a "middle ground" [solution] acceptable to all parties. *Id.*

[215] FLEWUG Petition at 10-12. FLEWUG states that it is acknowledging a trend toward statewide system development and that regional boundaries based on state geographic boundaries would be more conducive to the prevailing trend toward statewide system development that may lead to a "network-of-networks" linking federal users to state users and state users to local users. *Id.* at 11.

[216] *See First Report and Order*, 14 FCC Rcd at 196 ¶ 90.

[217] *See First MO&O*, 14 FCC Rcd at 8062, 8063 ¶¶ 5-7 (1999) (citing *First Report and Order*, 14 FCC Rcd at 197 ¶ 92); *see also* Federal Advisory Committee Act, 5 U.S.C. App. 2 (1988). The Federal Advisory Committee Act is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in Appendix 2 to Title 5, Government Organization and Employees.

[218] *See First Report and Order*, 14 FCC Rcd at 192 ¶ 92.

[219] *Id.* (citing Federal Advisory Committee Act).

70. We described the major responsibilities of the NCC as follows: (1) formulate and submit for Commission review and approval an operational plan to achieve national interoperability that includes a shared or priority system among users of the interoperability spectrum, for both day-to-day and emergency operations, and recommendations regarding Federal users' access to the interoperability spectrum; (2) recommend interoperability technical standards for Commission review and approval; (3) provide voluntary assistance in the development of coordinated regional plans; and (4) provide general recommendations to the Commission on operational plans of the public safety community.[220] We also stated that the NCC was expected to complete its work within four years of the release date of the *First Report and Order*.[221]

71. NCC—Organization and Purpose.[222] According to FLEWUG, the NCC should be more than a four-year advisory committee, and should have oversight and decision-making authority because the Commission lacks sufficient resources to provide oversight.[223] FLEWUG also contends that the NCC[224] must have two agendas: one for interoperability (focused on identifying lowest common denominator for interoperable communications) and the other for general use (focused on availability of spectrum for general use activities).[225]

72. The national committee that FLEWUG describes would have rulemaking and adjudicatory authority that is delegated to the Commission by statute.[226] Although the Commission is authorized to utilize outside services under particular circumstances,[227] we find FLEWUG's Petition

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[220] *See First Report and Order*, 14 FCC Rcd at 197 ¶ 92.

[221] *Id.* at 209 ¶ 122.

[222] We have separately addressed several petitions for reconsideration related to the NCC. *See First MO&O, supra* note 3.

[223] FLEWUG Petition at 18, 19.

[224] FLEWUG notes that it still has trepidations regarding the single national coordination body because of the complexities of the issues and the significant number of potential issues that a single committee would be required to address. FLEWUG Petition at 17.

[225] *Id.* at 16-17. FLEWUG states that we mischaracterized its position. *See id.* at 16 n.49 (citing *First Report and Order*, 14 FCC Rcd at 197, 198 ¶ 93). For the record, our characterization reflected FLEWUG's comments but did not reflect FLEWUG's subsequent statement supporting a national coordination body if separate agendas were kept. *See id.* at 16 n.51 citing *Ex Parte* letter of June 16, 1998. *But see supra* note 224.

[226] *See, e.g.*, 47 U.S.C. §§ 151 (Commission shall execute and enforce the Act), 301 (purpose of the Act includes maintaining Federal control over radio channels and to provide for the use of such channels under licenses granted by Federal authority), 303 (General Powers of Commission), 307 (Allocation of Facilities; Terms of Licenses), 308 (Applications for Licenses), 309 (Action Upon Applications).

[227] *See, e.g.*, 47 U.S.C. §§ 154(f)(4),(5) (Commission may utilize persons for administering exams for certain licenses and such persons may recover from examiner reimbursement for costs or such fees as the Commission permits), 332(b)(1) (Commission is authorized to utilize advisory coordinating committees to coordinate assignment of frequencies to private land mobile stations and Commission's authority to do so is not subject to or affected by FACA or 31 U.S.C. § 1342 (Limitations on Voluntary Services: an officer or employee of the United States Government may not accept voluntary services for government or employ personal services exceeding that authorized by law). *But see* 47 U.S.C. § 154(g)(3)(A) (notwithstanding any other law, in furtherance of its functions the Commission is authorized to accept, hold, administer, and use unconditional gifts, of property including voluntary and uncompensated services, as authorized by 5 U.S.C. § 3109); 5 U.S.C. § 3109(b) (when authorized by an appropriation or other statute, the head of an agency may procure by contract the temporary (not in excess of one

unpersuasive because it does not address the several controlling statutes, including the Communications Act, the Administrative Procedure Act,[228] and the FACA. Specifically, we note that our authority to establish the NCC, and provide administrative support, arises from the FACA, which governs the NCC's status as a federal advisory committee.

73. As for requiring the NCC to have separate interoperability and general use agendas, we established the NCC to advise the Commission on policy matters related to the development of a national interoperability plan, including recommendations on technical matters that are common to the public safety community generally.[229] The single committee also will assist in resolving inter-regional disputes by offering national guidelines to assist in the development of coordinated regional plans for the general use channels.[230] These national guidelines will be voluntary advisories.[231]

74. NCC—Relation to RPCs. APCO states that we must clarify the NCC's role in resolving disputes between RPCs. Additionally, FLEWUG and NYSTEC want us to authorize the NCC to adjudicate disputes between RPCs to ensure they are timely and accurately resolved.[232] In this connection, FLEWUG asserts that the modified inter-regional concurrence process adopted in the *First Report and Order* is inadequate to ensure sufficient coordination between regions because we placed the onus of reaching consensus on neighboring RPCs.[233] NPSTC asserts that the NCC—not the frequency coordinators[234]—should have primary responsibility for the generic plan to be used if an RPC disbands or fails to develop a Commission approved plan.[235] California recommends having the NCC define the roles of RPCs and frequency coordinators;[236] it avers that the 700 MHz planning process lacks the clearly

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year) or intermittent services of experts or consultants or an organization thereof, including stenographic reporting services).

[228] *See* 5 U.S.C. §§ 551-559.

[229] *See First Report and Order*, 14 FCC Rcd at 197 ¶ 92.

[230] *See id.* 14 FCC Rcd at 196 ¶ 91.

[231] *See id.* 14 FCC Rcd at 196-97 ¶¶ 91-93.

[232] FLEWUG Petition at 12, 13; NYSTEC Petition at 12, 13. Noting that federal agencies have a keen interest in region-to-region coordination and intra-region accord, FLEWUG urges reconsideration of our decision to defer completely to neighboring RPCs to resolve their own disputes. FLEWUG Petition at 12, 13. FLEWUG recommends a third-party mediation process using a national mediation board established from within the NCC and authorized by the Commission to adjudicate such disputes. *Id.*

[233] FLEWUG Petition at 12, 13. By requiring letters of concurrence signed by the chairperson of adjacent regions to be submitted to the Commission with a region's modification request, FLEWUG asserts that Commission has virtually guaranteed that there will be delays in submitting regional plans and modifications while RPCs attempt to solve cross-border interference problems or other disputes. *Id.* at 12.

[234] *See supra* note 169 and accompanying text.

[235] NPSTC Petition at 5, 6. According to NPSTC, the NCC must define a standard methodology by which regions perform planning and forward license applications to the coordinators for processing that incorporates standardized engineering practices, including TIA TSB88. RPCs and frequency coordinators must ensure that licensees are adequately protected from harmful interference. *Id.* at 6.

[236] California Petition at 11-13. California would have the NCC define the sequence of processing, each entity's role and responsibility in the process, and the form and content of the data to be forwarded from one entity to the next before any applications are submitted. *Id.* at 13.

defined division of duties and order of process that were established for the 800 MHz regional planning process.[237]

75. California holds out the "clearly defined" 800 MHz process as the reason to have the NCC assume responsibility over the RPCs and coordinators. We are unpersuaded by this suggestion because it does not significantly address the heart of our decision in the *First Report and Order* to adopt most of the 800 MHz process for the 700 MHz general use channels.[238] On the other hand, we agree with California and other petitioners that additional clarification of these matters would be useful because although modeled after the 800 MHz process, the 700 MHz process is far from identical, particularly with regard to the concurrent existence of the NCC. We address these matters further under the sections in this document entitled Regional Planning[239] and Frequency Coordination—Common Data Bases.[240]

76. NCC Membership. NPSTC requests clarification of the composition and responsibilities of the NCC. NPSTC members are concerned that participation in the NCC, if not funded, will be limited due to budgetary constraints placed upon potential participants. In this connection, NPSTC asks clarification concerning how appointments to the NCC will be made (including the number of terms and duration of a member's appointment), how all public safety radio services will be represented, when the NCC will be chartered, and the time and approval process reflected in the schedule for completion of tasks.[241] In its petition, FLEWUG asserts that representative membership to the NCC should include a representative from NTIA, FLEWUG, and the PSWN program.[242]

77. We recognize that as of the deadline date for filing petitions for reconsideration of the *First Report and Order*, many of NPSTC's concerns or questions had not yet been addressed.[243] However, after the filing date, significant events and activities have occurred that address NPSTC's issues in whole or in part. For example, the NCC was chartered on February 25, 1999, and the Chairman of the Commission appointed a chairperson for the NCC on January 28, 1999, to take office on the filing date of the charter. The NCC has an open membership policy and over two hundred members have joined the process. An eleven-member steering committee was selected by the NCC chairperson to be broadly representative of the public safety community and the communications equipment manufacturing industry. NCC subcommittees have been established to deal with issues of interoperability, technology and implementation. The NCC has held seven meetings to date, geographically dispersed so as to be readily accessible to all interested parties. Public participation in NCC affairs is enhanced by use of the World Wide Web and list servers.[244] On February 25, 2000, the NCC submitted Recommendations to the Federal Communications Commission for Technical and Operational Standards for Use of the 764-

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[237] *Id.* at 11, 12. California asserts that we took pieces from different processes and tried to glue them together without evaluating if they fit or result in a usable procedure. *Id.* at 12.

[238] *See, e.g., First Report and Order* 14 FCC Rcd at 190-196 ¶¶ 77-89.

[239] *See supra* Section D.1.

[240] *See infra* Section D.3.

[241] NPSTC Petition at 5, 6.

[242] FLEWUG Petition at 17, 18.

[243] The deadline date to petition for reconsideration of the *First Report and Order* was December 2, 1998.

[244] A list server is a form of e-mail whereby any message posted to the list is distributed by all who have subscribed to it.

776 MHz and 794-806 MHz Public Safety Band Pending Development of Final Rules. Those NCC recommendations currently are being evaluated by the Commission.

3. Frequency Coordination; Common Data Bases

78. In the *First Report and Order*, we certified all of the public safety coordinators to frequency coordinate applications for the 700 MHz band regional-planning spectrum.[245] By comparison, a single coordinator was certified in 1987 to coordinate the 800 MHz regional-planning spectrum,[246] but the Commission concluded that encouraging competition among coordinators of the 700 MHz band would promote cost-based pricing of coordination services and provide incentives for enhancing service quality.[247]

79. Frequency coordination is the process by which a private organization recommends to the Commission the most appropriate frequencies for private land mobile radio service applicants.[248] To recommend the most appropriate frequency for each application, all coordinators need complete and accurate knowledge of the radio environment in which a proposed system is designed to operate; this requirement includes up-to-date knowledge of all competing coordinators' recommendations related to the channels in question.[249] In this connection, we noted that, if attainable, a common coordinator data base ("CCDB") would be the best method for providing all coordinators with accurate, up-to-date information needed to recommend the most appropriate frequency for each application.[250] However, the record did not indicate that requiring the coordinators to create a consolidated data base existed as a practicable option.[251] As such, we decided that the "notice and waiting-period" provisions that are used for other PLMR spectrum with multiple coordinators were the most practical method by which accurate frequency coordinations can be made for 700 MHz band applications.[252] Under this process, each frequency coordinator must notify all other certified coordinators within one business-day of filing a frequency recommendation with the Commission. In addition, all applicants for new or modified facilities are

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[245] *See First Report and Order*, 14 FCC Rcd at 200 ¶ 98. There are currently four frequency coordinators certified to coordinate frequencies for public safety applicants. They are: APCO, International Association of Fire Chiefs, Inc. ("IAFC")/International Municipal Signal Association ("IMSA"), Forestry Conservation Communications Association ("FCCA"), and AASHTO.

[246] *See First Report and Order*, 14 FCC Rcd at 199 ¶ 96; *National Plan Report and Order*, 3 FCC Rcd 910.

[247] *See First Report and Order*, 14 FCC Rcd at 200 ¶ 98 (citing *Refarming Second Report and Order*, 12 FCC Rcd at 14,327).

[248] *See First Report and Order*, 14 FCC Rcd at 198, 199 ¶ 95 (citing Frequency Coordination in the Private Land Mobile Radio Services, PR Docket No. 83-737, *Report and Order*, 103 FCC 2d 1093 (1986) (*Frequency Coordination Report and Order*)).

[249] *See, e.g., First Report and Order*, 14 FCC Rcd at 200, 201 ¶ 99. Without such information, competing frequency coordinators would not know what other in-pool coordinators are doing and could make conflicting coordinations. *See, e.g., Refarming Second Report and Order*, 12 FCC Rcd at 14,333.

[250] *See First Report and Order*, 14 FCC Rcd at 200 ¶ 98 (citing *Refarming Second Report and Order*, 12 FCC Rcd at 14,332).

[251] *See First Report and Order*, 14 FCC Rcd at 210 ¶ 100 (citing *Refarming Second Report and Order*, 12 FCC Rcd at 14,333-335).

[252] *See First Report and Order*, 14 FCC Rcd at 201 ¶ 100.

required to observe a ten-day waiting period before commencing operation in order to avoid the possibility of interference with existing facilities.[253]

80. *Common Data Base* of *Regional Plans*. APCO avers that the four coordinators must abide by any variations that may occur between regions and must not make recommendations without determining whether recommending a particular frequency is consistent with the relevant regional plan(s).[254] In this connection, APCO contends that there must be a common data base of regional plans to ensure that all four coordinators follow the relevant plan and to avoid conflicts between adjacent regions.[255] APCO notes that NPSTC, which includes APCO and the other coordinators as members, is exploring options for the maintenance of such a planning data base and that direction and oversight from the Commission and the NCC would be appropriate.[256] APCO emphasizes that a common data base of regional plans would be separate and distinct from the CCDB for applications and licenses that the Commission discussed in the *First Report and Order*.[257]

81. We agree with APCO that regional plans will vary; after all, the process is by design intended to allow RPCs to develop unique plans that meet differing regional needs. We also agree with APCO that an automated, common data base of regional plans would help ensure that coordinators follow the relevant plans. In this connection, regional plans will be routinely available to the public and certified coordinators alike. All Commission approved regional plans, taken together, will serve as a common, albeit manual, data base of regional plans that will be readily available for frequency coordination purposes. We observe thus that each coordinator can analyze this data manually or develop an automated form. In view of APCO's description of NPSTC's efforts, we further observe that the certified coordinators can also jointly develop a common, automated data base assuming the four coordinators reach a consensus. However, we decline to micromanage each coordinator's approach to frequency coordination. Coordinators are representatives of users of public-safety spectrum and each group has provided coordination services on a Commission-certified basis for almost fifteen years, and on a Commission-recognized basis for as long as forty years.[258] Moreover, we are concerned that mandating a common planning data base could pose an unnecessary entry barrier that in turn could diminish competition in the provision of coordination services for the 700 MHz band.

82. *Common Coordinator Data Base*. Agreeing with the conclusion that a CCDB would be the best method for updating all coordinators, FLEWUG seeks reconsideration of our finding that establishing a CCDB was not a viable option.[259] In this connection, FLEWUG contends that the benefits

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[253] *See First Report and Order*, 14 FCC Rcd at 200 ¶ 100 (citing *Refarming Second Report and Order*, 12 FCC Rcd at 14,333-335).

[254] APCO Petition at 19. APCO notes that several plans may be relevant if the applicant is near a border. *Id.*

[255] APCO Petition at 18-19. APCO states that it is concerned that some of the other coordinators do not have extensive local involvement in each of the regions comparable to the APCO Local Frequency Advisors. *Id.* at 19.

[256] APCO Petition at 20.

[257] APCO Petition at 20 citing *First Report and Order*, 14 FCC Rcd at 200, 201 ¶¶ 99, 100.

[258] *See, e.g.*, Frequency Coordination in the Private Land Mobile Radio Services, PR Docket No. 83-737, *Report and Order*, 103 FCC 2d 1093, 1095 (1986) ("*Frequency Coordination Report and Order*"), *recon. denied, Memorandum Opinion and Order*, 61 RR2d 148 (1986).

[259] FLEWUG Petition at 22 (citing *First Report and Order*, 14 FCC Rcd at 201 ¶ 100).

of establishing a CCDB would outweigh the effort required to maintain it.[260] Additionally, FLEWUG states that while we found it impracticable, a CCDB could be accomplished through a third party.[261] As such, FLEWUG asks us to mandate the establishment of a CCDB on reconsideration. Moreover, FLEWUG also challenges our adoption of the "notice and waiting-period" provisions for the 700 MHz band. In this connection, FLEWUG contends that commenters did not have adequate notice of the possibility that this approach, which the Commission adopted in the *Refarming Second Report and Order*, could be applied to the 700 MHz band.[262]

83. For the general use channels, FLEWUG's views concerning the establishment of a CCDB are points for the coordinators to consider in deciding whether to voluntarily create a CCDB. FLEWUG's Petition does not, however, establish a record that would support *requiring* the coordinators to establish and maintain a CCDB, either directly or through a third-party, as a practicable option. While a CCDB may be desirable, we also recognize that implementing a real-time common data base would require extensive time, expense and testing to perfect, and that there may be other less costly and less complex methods to ensure that all necessary data is exchanged in a timely manner.[263] Therefore, at this time, we will leave to the coordinators' discretion whether to use a real-time common data base to frequency coordinate general use spectrum. We believe that the public safety coordinators are in a better position to determine what will allow them to perform such duties in an efficient, effective and expeditious manner.[264] Thus, for the general use channels, coordinators may develop their own common data base to make frequency recommendations, use the Commission's data base, or use the services of a third party. Any disputes that arise due to inconsistencies or discrepancies in the records of different coordinators, however, will be resolved using the Commission's data base. In this connection, we note that copies of the Commission's data base are available through the National Technical Information Service.[265] Further, we provide on-line access to our PLMR Service data base through a third party contractor[266] and place license grant information on the Internet.[267] Moreover, within the next year, the Universal Licensing System will be implemented for private land mobile radio services including applications for the Public Safety Pool.[268]

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[260] *Id.* at 22.

[261] *Id.* at 22, 23.

[262] *Id.* at 23.

[263] *Accord Refarming Second Report and Order*, 12 FCC Rcd at 14332-33.

[264] *Id.*

[265] Federal Communications Commission Information Seekers Guide, Public Service Division, Office of Public Affairs (October 1995).

[266] *Id.*

[267] *See* FCC homepage on the World Wide Web at <http://www.fcc.gov/wtb/databases.html>.

[268] We are also mindful that the NCC has recommended that the Commission require use of a pre-coordination data base for interoperability channels. The pre-coordination data base is to be provided by the National Law Enforcement and Corrections Technology Center, and funded by the National Institute of Justice. *See* NCC Recommendations at 23, 24. This, and other NCC recommendations, are currently under review by the Commission.

84. Turning to FLEWUG's challenge to the "notice and waiting-period" provisions, we reject FLEWUG's claim of inadequate notice. The *Second Notice* encouraged commenters to suggest refinements and improvements to the organization and operation of the regions and the regional planning committees. For example, the Commission asked if it should designate one or more frequency coordinators to have a formal role in the regional planning process; and if so, what that role should be, and which frequency coordinators should be so designated.[269] Furthermore, as noted in the *First Report and Order*, several commenters addressed the question of coordination in connection with the 700 MHz band.[270] Thus, the notice provision that we adopted was a logical outgrowth of our questions concerning frequency coordination for the 700 MHz band as it is directly part of our decision to certify multiple coordinators. Moreover, the notice provision is directed to our certified coordinators, as opposed to applicants.

85. FLEWUG's challenge does, however, provide an opportunity for us to clarify that the "waiting-period" provision is inapplicable to 700 MHz band applicants. The "waiting period" is only an issue where applicants may operate under conditional licensing.[271] Hence, only the "notice" provision applies in the 700 MHz band, because conditional licensing is not available in this band. This provision, set forth in Section 90.176 of our Rules, requires frequency coordinators to notify and provide certain information to all other frequency coordinators who are also certified to coordinate in the 700 MHz band.[272] As part of this *Second Memorandum Opinion and Order*, we amend Sections 90.175 and 90.176 of our Rules to clarify these issues.[273]

86. *Frequency Coordination Fees to Fund RPCs.* While it does not seek reconsideration of the decision to certify four competing coordinators,[274] APCO urges that we reconsider the issue of using the coordination fee collection process to create a fund to cover RPC expenses. APCO adds, however, that most RPC expenses will occur long before coordination fees are collected. In this connection, APCO states that it is willing to provide "upfront" financial support for the RPCs, provided that there is a mechanism for subsequently recovering those costs such as a uniform surcharge added to *all* 700 MHz band coordination fees.[275]

87. Fees for frequency coordination services must reasonably reflect the cost of providing coordination services.[276] Thus, a coordinator's fee schedule could discount "RPC pre-coordinated" applications if these applications are less costly to coordinate than other 700 MHz applications. Turning to APCO's Petition, we observe that the established frequency coordination process provides

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[269] *See Second Notice*, 12 FCC Rcd at 17,757 ¶ 112.

[270] *First Report and Order*, 14 FCC Rcd at 199 ¶ 96. *But see id.* (Commission [erroneously] stated that *Second Notice* did not directly address the issue of frequency coordination).

[271] 47 C.F.R. § 90.159 allows certain applicants to operate for 180 days during the pendency of their applications upon the filing of a properly completed formal application that is accompanied by frequency coordination.

[272] *See* 47 C.F.R. § 90.176 (coordinator notification requirement on frequencies below 512 MHz).

[273] *See* 47 C.F.R. §§ 90.175 (Frequency coordination requirements), 90.176.

[274] APCO Petition at 21.

[275] *Id.*

[276] *Frequency Coordination Report and Order*, 103 FCC 2d at 1115 ¶ 45 (coordination fees must reasonably reflect overall cost of services).

opportunities for RPCs to mitigate funding issues. Specifically, although coordination fees cannot be set to recover RPC expenses, the coordination process allows RPCs to defer expenses, such as precoordinating each application, from the committee to the individual applicants selected for licensing under the region's plan. Hence we affirm the competitive frequency coordination process that we adopted in the *First Report and Order*[277] and decline to adopt a new mechanism for creating a fund to cover RPC expenses.

V. PROCEDURAL MATTERS

88. In its Reply Comments, Maxon America, Inc. ("Maxon") contends that the Petitions for Reconsideration and Clarification filed by Motorola and FLEWUG exceed the twenty-five page limit set forth in 47 C.F.R. § 1.429(d),[278] and that we should have returned the petitions without consideration. Accordingly, Maxon moves to strike these Petitions from the record.[279]

89. One day after it filed its Petition, Motorola filed a *nunc pro tunc* Motion for Leave to Exceed Page Limit, requesting that we waive the relevant page limitation and accept Motorola's Petition as filed. Because of the many new and complex issues involved in this proceeding, we conclude that the public interest would be well served by full consideration of Motorola's views on these matters. We, therefore, accept Motorola's *nunc pro tunc* Motion. Although FLEWUG did not request a similar acceptance of its Petition, because of the same reasons, we also accept FLEWUG's Petition. However, we caution all persons submitting filings to the Commission to conform to all applicable Commission rules.

90. *Paperwork Reduction Analysis*. This *Second MO&O* contains modified and proposed information collections. As part of its continuing effort to reduce paperwork burdens, the Commission invites the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on revision to the information collections contained in the *Second MO&O*. As required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13, public comments on the information collections contained in the *Second MO&O* are due 30 days after publication of the summary of the *Second MO&O* in the Federal Register.

91. Comments on the modified and proposed information collections contained in the *Second MO&O* should address: (a) whether the collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. These comments should be submitted to Judy Boley, Federal Communications Commission, Room 1-C804, 445 12th Street, S.W., Washington, D.C. 20554, or via the Internet to jboley@fcc.gov. Furthermore, a copy of any such comments should be submitted to Virginia Huth, OMB Desk Officer, 10236 NEOB, 725 17th Street, N.W., Washington, D.C. 20503.

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[277] *See First Report and Order*, 12 FCC Rcd at 191 ¶ 79.

[278] Motorola's Petition contained 29 pages plus two Appendices, and FLEWUG's Petition contained 26 pages. The Note to 47 C.F.R. § 1.49 states that the table of contents and summary pages shall not be included in complying with any page limitation requirements as set forth by Commission rule.

[279] Reply Comments of Maxon at 1.

Regulatory Flexibility Act

92. As required by Section 604 of the Regulatory Flexibility Act, 5 U.S.C. § 604 (1981) ("RFA"), we have prepared a Second Supplemental Final Regulatory Flexibility Analysis ("Second SFRFA") of the expected impact on small entities by the policies and rules adopted in this *Second Memorandum Opinion and Order*. The Second SFRFA is contained in Appendix B.

Authority

93. This action is taken pursuant to Sections 1, 4(i), 4(j), 303(f), 303(r), 309, 332, 337, and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 303(f), 303(r), 309, 332, 337, 403 and 405.

Further Information

94. For further information regarding this Order, contact Peter J. Daronco or Paul Moon, Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, Policy and Rules Branch, at (202) 418-0680.

VI. ORDERING CLAUSES

95. Accordingly, IT IS ORDERED pursuant to Sections 4(i) and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 405, and Section 1.429(i) of the Commission's Rules, 47 C.F.R. § 1.429(i) that the petitions for reconsideration and/or clarification filed by the American Association of State Highway and Transportation Officials, Forestry Conservation Communications Association, International Association of Fire Chiefs, Inc., International Association of Fish and Wildlife Agencies, International Municipal Signal Association, and National Association of State Foresters (joint filing), Association of Public-Safety Communications Officials-International, Inc., Dataradio Group of Companies, Ericsson, Inc., Federal Law Enforcement Wireless Users Group, King Communications U.S.A. Inc., Motorola, Inc., National Public Safety Telecommunications Council, New York State Technology Enterprise Corporation, Commonwealth of Pennsylvania, John Powell, Project 25 Steering Committee, Safety Tech Industries, State of California, and State of Florida between November 12, 1998 and December 2, 1998, respectively, ARE GRANTED to the extent indicated herein and otherwise ARE DENIED.

96. IT IS FURTHER ORDERED pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i) and Sections 1.49 and 1.429 of the Commission's Rules, 47 C.F.R. §§ 1.49 and 1.429, that Motorola's Motion for Leave to Extend Page Limit IS GRANTED and Maxon America, Inc. Reply Comment IS DENIED to the extent indicated herein.

97. IT IS FURTHER ORDERED pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), that the Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Second Memorandum Opinion and Order*, including the Second Supplemental Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary